



## DOCTOR OF EDUCATION (EDD)

### **The Potential Effectiveness of Self-Compassion, Cognitive Emotion Regulation and Mindfulness-Based Stress Reduction Training as Stress-Management Strategies for Teachers Working in an International Context**

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The Potential Effectiveness of Self-Compassion,  
Cognitive Emotion Regulation and Mindfulness-  
Based Stress Reduction Training as Stress-  
Management Strategies for Teachers Working in an  
International Context

Richard Smith

A thesis submitted in partial fulfilment of the  
requirements for the degree of Doctorate of  
Education

University of Bath  
Department of Education  
July 2017

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## Abstract

This thesis explored the relationships between 1) Self-compassion 2) Cognitive Emotion Regulation and 3) Mindfulness Based Stress Reduction (MBSR) and teacher stress in a foreign international school setting. The retrospective, multi-tiered study investigated a total of 177 expatriated teachers working in multiple international schools around the globe; at least 17 of whom indicated that they had completed a MBSR course. A mixed-methods approach was used over three stages utilising the following instruments: 1) an adapted stress impact survey, 2) Teacher Interview Protocol (TIP), 3) the short forms of the Cognitive Emotion Regulation Questionnaire (CERQ-SF), the Self-Compassion Scale (SCS-SF), and the Perceived Stress Scale (PSS-4). Results suggest that teachers' beliefs about stress correlate with job satisfaction; 82.6% of respondents who reported that stress has 'hardly any effect' also reported that they liked their job overall; whereas, 76.9% and 36.4% of respondents that believed stress had affected their teaching 'some' or 'a lot' reported liking their job, respectively. Results also indicate that higher perceived stress is strongly correlated with both 1) decreased self-compassion ( $r = -.491, p < .001$ ) and 2) increased use of non-adaptive cognitive emotion regulation strategies, such as *Catastrophizing* ( $r = .392, p < .001$ ). All five adaptive cognitive coping strategies were positively correlated with Self-Compassion, four were significant; only *Refocus on Planning* failed to reach significance at  $p < .05$ . The data indicated no statistically significant differences between MBSR and non-MBSR participants, regarding perceptions of stress (PSS-4), self-compassion (SCS-SF), and eight of the nine coping strategies (CERQ-S), with the exception being that MBSR participants experienced reduced *Self-Blame* ( $p < 0.007$ ). Conclusions find that policies and practices aimed at supporting the three aspects of self-compassion offer one possible avenue to reducing teacher stress and maladaptive thinking strategies, and thereby increasing job satisfaction, for teachers working in a foreign country.

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## Glossary

**Cognitive reappraisal:** *"The alteration of potentially emotion-eliciting situations with the goal of changing their emotional impact"* (Boden et al., 2013, p. 1664).

**Cognitive emotion regulation:** refers to nine cognitive strategies that are *"essentially stable styles of dealing with negative life events."* (Garnefski et al., 2002, p. 11),

**Emotional intelligence (EI):** *"The ability to engage in sophisticated information processing about one's own and others' emotions and the ability to use this information as a guide to thinking and behaviour"* (Mayer et al., 2008, p. 503).

**Emotional labour:** The effort deployed in the management of emotions in the private domain and as part of an economic exchange at work. (Hochschild, 1983)

**Emotion regulation (ER):** *"refers to the processes by which we influence which emotions we have, when we have them, and how we experience and express these emotions"* (Gross, in Lewis, 1993, p. 500).

**Mindfulness Based Stress Reduction (MBSR):** An eight-week meditation-based programme designed to increase the application of non-judgmental awareness and by consequence, ease the impact of physical and emotional discomfort.

**Mindfulness:** *"awareness, of present experience, and with acceptance"* (Germer et al., 2005, p. 8).

**Self-Compassion:** *"compassion turned inward."* (Neff, 2013, p. 857).

**Teacher Stress:** *"The experience by a teacher of unpleasant, negative emotions, such as anger, anxiety, tension, frustration or depression, resulting from some aspect of their work as a teacher."* (Kyriacou, 2001, p. 28).

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## **Chapter I: Introduction**

A range of studies have confirmed that stress is inherent to the vocation of teaching (Hargreaves, 1998; Kyriacou, 1987; Prilleltensky et al., 2016). Stress, as conceptualised by Lazarus and Folkman (1984) is the result of a particular interaction between a person and their environment. In the context of education (DeSteno et al., 2006), stress is known more specifically as ‘teacher stress’ and is understood as follows:

The experience by a teacher of unpleasant, negative emotions, such as anger, anxiety, tension, frustration or depression, resulting from some aspect of their work as a teacher. (Kyriacou, 2001, p. 28).

Although the teacher’s environment is central to the understanding of teacher stress, there is little research with regard to the experience of stress among teachers who are working in a foreign country. This is problematic for a range of reasons, some of which will be explained next.

A number of studies on teacher stress have shown that contending with the emotional demands of teaching could lead to emotional exhaustion, and these feelings may cascade into cynical attitudes about students or colleagues, or both, and the development of a tendency for negative self-evaluation (Chang, 2013; Maslach and Jackson, 1981). In addition, research has shown that heightened teacher stress increases the likelihood that a teacher will ignore task-relevant stimuli, since managing their emotions requires them to direct their attention away from the goals of the school and towards managing their own experience (Lapointe et al., 2013; Rice, 2002; Rice and Trist, 1952). The implication is that teachers’ emotions, including stress, can be seen as the central part of a network that connects virtually every aspect of the educational process; consequently, the strategies deployed to cope with difficult feelings like stress will have implications for their work (Chang, 2013; Maslach and Jackson, 1981) and the wider organisation (Czander, 1993).

The strategies that are available to help teachers cope with stress are limited for several reasons. First, it has been argued quite extensively that the regulation of emotions, especially difficult emotions, is also a process that operates outside of the realm of consciousness (Custers and Aarts, 2010; Gross and Thompson, 2007). Second, educators report that they feel expected to follow certain social rules regarding which



specific emotions should be displayed and to what extent (Barber et al., 2011; Hochschild, 1983). Third, educators are, by definition, acting as a type of caregiver, and are under increased demands for their attention (American Psychological Association, 2012, p.6) which arguably influences when, where and how they can cope with stress. In short, the range of strategies available for teachers to use when coping with the stress are limited (Botwinik, 2007).

Strategies for coping with stress are believed to fall into one of two categories: “*problem-focused strategies*” (that address the stressors), and “*emotion-focused coping strategies*” (that deal with emotional discomfort) (Trenberth, Dewe and Walkey 1996, as cited by Richards, 2012, p. 300). A small body of research into ‘cognitive emotion regulation’, which comprises nine problem-focused strategies, suggests that these are available to teachers for coping with stress (Garnefski and Kraaij, 2007; Gliebe, 2013; Martin and Dahlen, 2005, 2005). Alternatively, a growing body of research has suggested that ‘Mindfulness Based Stress Reduction’, or MBSR, and ‘Self-Compassion’, is promising for dealing with stress in general, and appears to have application to the context of education (Gold et al., 2010; Goldin and Gross, 2010; Roeser et al., 2012; Taylor et al., 2015). It has been suggested that these emotion-focused strategies might have a stress-buffering effect, thus minimising the impacts of stress, by changing the ways in which one relates to oneself in times of suffering altogether (Neff, 2003). In the hundreds of papers reviewed for this thesis, however, only a handful of studies appear to have addressed the relationship between teacher stress and these coping strategies.

The aim of this thesis, therefore, is to offer insights into the potential effectiveness of three strategies: 1) self-compassion, 2) mindfulness-based stress reduction training and 3) cognitive emotion regulation for teachers working in an international context. It will achieve this through a review of the literature (chapter II) and a mixed-methods research design (Chapter III) to answer the following research questions:

- 1) To what extent do teachers who work in international school settings abroad experience perceived stress? How do they perceive the impacts of the stress?
- 2) What is the relationship between ‘cognitive emotion regulation’, participation in MBSR and Self-Compassion? To what extent do each of these strategies relate to levels of perceived stress among teachers working in a international school setting?

- 3) What are the implications for school directors and principals working in international schools?
- 4) Do the outcomes of the research on this sample reflect the outcomes suggested by previous studies?

The review of the literature in chapter two will begin by investigating the current conceptions of emotions, emotional labour and emotional regulation in general. Then the chapter will address the more specific emotions of stress and anxiety and take a particular focus on the context of education for teachers working in a foreign country. Next, the review will consider the causes of teacher stress before then making a case for a more nuanced reconceptualization of stress as either simple or complex. This will be followed by a discussion of three strategies for coping: cognitive emotion regulation, mindfulness and self-compassion. To better understand the outcomes arising from the practice of mindfulness meditation, the research will review data from studies using the MBSR course framework. The chapter will conclude by drawing attention to gaps in the current research on the application of these coping strategies for teacher stress.

Chapter three will present the methodology as a mixed-methods research design. This chapter will begin by exploring theoretical, epistemological and philosophical foundations. The thesis will draw insights from the theory of Social Constructivism and Object Relations Theory. This chapter will detail the research setting, participant demographics and ethical considerations. In addition, it will present the research collection tools in detail, along with their strengths and a critical analysis of their potential limitations. This chapter will conclude with a matrix of the research design.

Chapter four will present the findings of each stage of the study with regard to the research questions. Findings will be accompanied by their respective limitations. In chapter five, a discussion and interpretation of the results through the lenses of the previously-mentioned theories will be offered. Finally, in chapter six, the thesis will detail overall contributions and limitations, and then offer recommendations for future research.

## **Chapter II: A review of the literature**

The literature review has four substantive sections. First, it will explore the role of emotions in the practice of teaching. This exploration will broadly cover the concepts of Emotional Labour and Emotion Regulation [ER] and their relevance in managing educator stress and, subsequently, teacher well-being. Secondly, the review will turn to a discussion of the literature on stress, self-perceptions of stress, and the impact on the classroom teacher. It will conceptualize the notion of stress according to two domains: Simple and Complex. Thirdly, the chapter will review a method of stress reduction that is based in the practice of mindfulness meditation and, more specifically, a mindfulness-based stress reduction course [MBSR]. This course aims to influence the ways in which one thinks (promoting more adaptive thinking strategies) as well as how one relates to one's own thoughts and emotions (promoting increased compassion towards the self). In the fourth and final section, the chapter will evaluate cognitive emotion regulation strategies and measures of self-compassion as possible avenues for teachers to contend with both the simple and complex domains of stress. The section will also evaluate the extent to which participation in MBSR may affect these measures.

## **Emotions in the teaching profession**

The literature on emotions in the teaching profession speaks to the ways in which teachers' emotions influence both their experience as a teacher and their ability to teach. To understand why, it is imperative first to provide a multifaceted perspective on emotions and to outline the current theoretical frameworks seeking to explain the ways in which they are regulated.

## Emotions

Broadly speaking, an emotion is a concept that expresses the full triangulation of particular experiential, behavioural and physiological phenomena (Gross, 1998). Through these avenues, emotions are constantly playing out over time, consciously or unconsciously, to provide a simplified, singular and accessible assessment of one's relationship with immediate meaningful internal and external stimuli. Emotions are, in short, a system of feedback. This feedback system (i.e. the emotions) functions to influence the probability that the emotion(s) will be experienced again (Gross, 2006).

Emotions are largely an unconscious process. One cannot have the awareness of an emotion until after it has already arisen. In essence, an emotion provides a summary statistic that is most recognizable by the experiential component, i.e., what it feels like. Feelings are distinct from emotions, however. The 'feeling' of something happening inside oneself is a response to an emotion and it is conjoined to a somatic response and facial expressions, which comprise the behavioural component. These are typically accompanied by a corresponding series of physiological responses in one's body, such as a change in blood pressure and pupil size. These three components of emotion are, to some extent, all symptoms of the emotion, and are in a dynamic relationship with one another, as well as their social and physical environment (Lewis et al., 2010).

The way in which one interprets an emotion is also part of the emotional experience. This process, too, is largely beyond the realm of one's control. The interpretation of the emotion, that is, the attitudes that one has toward the emotion, have been argued to be largely informed by one's social and physical environment (Frijda, 1988). In addition to the context of one's culture, emotions are heavily influenced by the significance that an emotion has for the individual (Eid and Diener, 2001). For example, Eid and Diener (2001) offer the finding that the extent to which the emotional experience of pride is desirable largely depends on whether the person's culture is individualistic or collectivist. Frijada (1988) noted that the belief that the emotion should be expressed or suppressed is related to the perceived social consequences of expression in the given social context.

In the social context of an educational institution, emotions are predominately treated as matters of personal choice and the sole responsibility of the person experiencing them (Ball, 2003; Goleman, 2004; Hargreaves et al., 2009). Teachers may feel pressure

to display certain emotions and minimize others. For example, a teacher may be expected to be encouraging from the first day of school. On the other hand, as Hargreaves (1998, p. 837) explains, the passionate emotions, which are inherently more difficult to regulate, such as:

joy, excitement, frustration, and anger are kept off of the educational agenda in favour of ones that encourage trust, support, openness, involvement, commitment to teamwork and willingness to experiment.

In short, emotions, and beliefs about them, operate under the 'rules' of the social and cultural context to direct one's attention and behaviours toward increasing socially favourable outcomes and decreasing socially unfavourable consequences (Frijda, 1988; Lewis et al., 2010). The effortful suppression of certain emotions, or cultivation of desirable ones, is known as emotional labour, and will be explained in the following section.

## **The impact of a school's environment on emotional expression**

The following section will first discuss how the social context of a school might affect a teacher's emotional experience. Second, the section will discuss the motivations, 'feeling rules' and 'display rules', which operate to inform a teacher's response to their school's context; a process known as 'emotion work'. Then, the section will discuss the effort required to abide by these rules. Finally, the section will conclude with a brief discussion regarding the impact that this has on teachers and their schools.

### **The role of emotion at school**

People, including teachers, working in an unfamiliar, foreign (i.e. outside of their home country), multi-cultural context are tasked with the additional burden of interpreting the new socio-cultural norms if they are to secure acceptance from the group (Passeron and Bourdieu, 1990). For example, teachers may have personal beliefs that they should display anger towards an unruly class but may work under societal norms that suggest any display of anger is inappropriate. Czander (1993, p. 243) explains:

The desire to become a member of this sentient group and to obtain the almost therapeutic benefits provided motivates employees to repress the fears and anxieties associated with issues related to entry and sustaining membership.

In other words, because a teacher functions as part a wider social group, they might feel forced into effortful repression of certain emotions in order to maintain cohesion with social norms. Thus, 'emotion work' might be necessary to meet goals that are personal as well as to meet the goals of the organization, even when those goals may be distinctly unique (Diefendorff and Gosserand, 2003, Hochschild 1979).

Hochschild (1979, p. 561) named the aforementioned process of interpretation as 'emotion work' and conceptualizes this as "*the act of trying to change in degree or quality an emotion or feeling*" and notes that this work focused on two distinct actions: bringing an emotion to the fore, and suppressing undesired feelings which are already present. This work is guided by socially appropriate '*feeling rules*,' which Hochschild (1979, p. 564) understands as follows:

A feeling rule as it is known by our sense of what we can *expect* to feel in a given situation, and a rule as it is known by our sense of what we *should* feel in that situation. (Hochschild, 1979, p. 564, her emphasis)

To work within an environment of emotional intensity requires an understanding of these 'feeling rules'.

Feeling rules dictate that teachers may attempt to regulate their emotions according to their own purpose and goals, or the school's goals. This may include a deliberate increase of negative emotions and decrease in positive ones, or vice versa (Sutton, 2004). For example, a teacher may feel compelled to display a stern expression, even when not feeling genuinely angry or upset, in an attempt to influence the attitudes of their students. Conversely, when feeling deep amounts of anger, a teacher may nonetheless act to display friendliness. This 'surface acting' is a form of emotion work that teachers must perform (Hochschild, 1979). Taking it one step further, a teacher might draw upon certain memories or events so as wilfully to experience the socially appropriate emotion; this 'deep acting' constitutes another form of emotion work (Hochschild, 1979). Although teachers may not have the experience of the appropriate emotion (e.g. 'feeling rules'), they may be willing, if not required, to exert this effort because of 'display rules', which are the standards of behaviour associated with sociocultural norms (Ekman & Friesen, 1975, as cited by Sutton, 2004).

When attempting to understand how teachers contend with the effort of emotion work, one must also consider a teacher's beliefs about their role and purpose in the organization. As Frijada (1988, p. 349) posited, "*emotions arise in response to the meaning structures of given situations; different emotions arise in response to different meaning structures.*" Teachers have a meaningful stake in their own moral purposes and are expected to have one in the purposes of the organization as well. In instances when those goals are misaligned, it is unlikely that the organizational structures and policies will shift to make individuals' purposes achievable. This misalignment in goals can contribute to anxious 'emotions' throughout the organization (Obholzer and Zagier-Roberts, 1994). As explained below, this can happen for several reasons.

This can happen when people are obstructed from achieving their goals (e.g. when meetings, checklists and form-filling leave no time for care) when they are compelled to realize other people's goals and agendas that they find inappropriate or repugnant, (as in some kinds of mandated curriculum requirements) when they pursue or are required to pursue goals or standards that are beyond their reach, (e.g. when learning standards are defined too



ambitiously for most children who are supposed to meet them) or when they are unable to choose between multiple goals (at times of multiple innovation and reform, for example). (Hargreaves, 1998, p. 841).

Contending with these ambiguities is inescapably part of the vocation of teaching, especially during periods of change. The ability to respond to emotions appropriately is especially useful when faced with difficulties and change. Within the vocation of teaching, a change implies a “*change in ‘our subjective existence and our relations one with another’*” (Ball, 2003, p. 217, citing Rose, 1989: ix). In other words, the ways in which teachers appraise their situation or environment is arguably related to the ways in which they think about themselves and their understanding of the expectations and norms of their social group.

Despite the inevitability of goal misalignment and the resulting emotional effects, school leadership is predicated on the assumption that teachers are capable enough to access their emotions and should, therefore, actively manage their responses to them. This expectation can, unfortunately, also have terrible consequences for teachers and the wider vocation of teaching. For example, drawing from a range of studies, Barber et al. (2011, p. e173) explains that working under a continual mismatch between what is felt and what is expected to be felt and displayed can lead to “*negative psychological outcomes*”, including emotional exhaustion and “*greater turnover intentions*.”

The implication arising from the above is that within a school, teachers need physical or cognitive (or both) systems in place in order to mediate difficult emotions before they escalate. Otherwise, they are at the mercy of conscious and unconscious emotional defences, which function for the purposes of 1) self-preservation and 2) preservation of their role within their work or social group (Antonacopoulou and Gabriel, 2001). Furthermore, because teachers’ private emotions are also experienced by and within the group, as well as the individual, the belief systems used in the regulation of these emotions (the emotional labour), as well as the cognitive systems by which they are regulated (the appraisal strategy) are of substantial importance to school leadership (Hutton, 1962).

In summary, the unfamiliar social and environmental context of a foreign international school carries with it ‘feeling rules’ and ‘display rules’ regarding emotional expression. A teacher’s ability to conduct the work needed to manage emotions consistently and

appropriately, and thereby follow these rules, requires effort; this effort is known as emotion regulation. To understand how a teacher might regulate emotions effectively, it is first necessary to take a deeper look into the process of emotion regulation before then looking at how it operates with regard to the specific emotions of anxiety and stress, as well as their underlying systems of appraisal. Before this, however, it is interesting first to explore the social and environmental contexts. The following discussion will therefore aim briefly to address the disputed term: 'international school.' Next, it will seek to outline some of the common stressors which teachers in those socio-cultural contexts are facing. Following that, the section will then address the means by which teachers in those contexts are able to regulate their emotions.

## **What is meant by the term ‘international school’?**

The term ‘International School’ is a disputed one; it has been subjected to a wide range of definitions, interpretations and connotations (Cambridge and Thompson, 2004). For Hill (2016), international schools are conceptualized according to at least five criteria, including: their purpose, curriculum, the proportion of host country nationals attending, the cultural diversity of the school’s leadership, and their source of funding (Hill, 2016). The term international school is probably best thought of as existing upon a spectrum of national to international rather than as a duality. This continuum of definitions is because whether it is called an international school, EU school, a national private school, or something else, is less relevant than the school’s primary task (Bunnell et al., 2017; Hill, 2016).

Even using the heuristic of primary task, research into organizations has clearly shown that the stated purpose is not guaranteed to align with what people think it is, or with how people act (i.e. the phenomenological purpose) (Miller and Rice, 1967). Thus, even if conceptualized narrowly, teachers are left with a wide range of possible interpretations of the term ‘international school’. Add to that the fact that, when compared to traditional systems of education, the concept of international education is still developing (Hayden and Thompson, 1995).

Of the aforementioned criteria, it has been argued that when claiming that a school is international, *“the provision of an international curriculum is the characteristic that makes any such claim to be legitimate”* (Bunnell et al., 2017, p.306). One such curriculum is The International Baccalaureate Organization (abbreviated as IBO) curriculum, which is claimed to be the preferred choice of most ‘international schools’ (Cambridge and Thompson, 2004). As Hill, (2016, p.9) notes, however, *“not all international schools necessarily provide an international education.”* Indeed, some international schools may use a dual curriculum that has only parts, or none, of the IBO curriculum (Hayden and Thompson, 1995). For example, some schools are known to reserve the IB curriculum for only their brightest students, others for their oldest. While Bunnell et al. (2017) would argue that this confusion undermines the institutional legitimacy, using the IBO curriculum as a control is not necessary for the purposes of investigating teacher stress among teachers working in a foreign international context.

To conclude, the term ‘international school’ has been difficult for researchers to define. Conceptualizing the work of a school according to its primary task, which is delivering an international curriculum, has emerged as one potential solution to this problem, but this criterion carries its own set of difficulties; namely, the potential misalignment between the stated purpose and the phenomenological purpose. The range of definitions has impeded the ability to offer generalizable solutions to teachers who are exposed to the personal and social stressors of working in a foreign country. These stressors will be discussed in the forthcoming section.

### **Stress among teachers working in a foreign country**

The need to understand stress among teachers in an international setting has been largely ignored. Teachers working in their home countries have predictable access to reliable networks of social supports, and it has been shown that a strong network of social supports is essential to a teacher’s overall well-being (Roeser et al., 2012; Taylor et al., 2015). Teaching in a familiar geographical setting offers greater predictability in one’s daily life outside of school. Both of these factors that have been shown to mediate the perceptions of stress (see: Botwinik, 2007; Hepburn and Brown, 2001). Another researcher found that teachers in a foreign setting most often cited time constraints and an overload of demands when referring to stress (Morrow, 1994). Similarly, Sunder (2013, p. 85) noted that teaching in this setting was understandably stressful because some *“situations go beyond merely meeting contractual obligations.”* It is, therefore, reasonable to assume that teachers that are physically apart from their social support network, outside of a familiar environment, and forced simultaneously to evaluate and learn the nuances of their adopted culture, have a different experience than teachers who work in their home countries. Despite this, the body of research on teacher stress has not comprehensively addressed the experience of stress for teachers working abroad. There is even less information regarding strategies to regulate emotions in this foreign setting. A deeper discussion into the process of emotion regulation will be presented in the forthcoming section.

## Emotion regulation

It is understood that emotions vary in duration, depth and intensity, that they may be simple or complex, and may be experienced in isolation or as a group of mixed emotions (Gross, 2015). As has been argued above, the social nature of the vocation of teaching requires an ability, if not specific strategies, to regulate emotion, and thereby express a particular emotion (Hargreaves, 1998; Mattern and Bauer, 2014; Sutton, 2004). This process is known as 'Emotion regulation' and it is conceptualized as "*the activation of a goal to modify an unfolding emotional response*" (Gross, Sheppes, & Urry, 2011, as cited in Gross, 2015, p. 130). There are various models of emotion regulation, but these unanimously suggest that people are, to a certain extent, able to influence their own responses to emotions, as well as their responses to the emotions of others.

In attempting to explain some of the ways in which people regulate their emotions, Gross and Thompson (2007) put forth a heuristic, called "The Modal Model" (see Fig. 1 below); this describes emotions as follows:

Emotion arises in the context of a person–situation transaction that compels attention, has a particular meaning to an individual, and gives rise to a coordinated yet malleable multisystem response to the on-going person-situation transaction (Gross, as cited in Lewis et al., 2010, p. 499).

According to the Modal Model, there exists a perpetual interaction between a person and psychologically meaningful stimuli, which thereby directs the person's attention either towards or away from the stimuli, giving rise to an appraisal and eventually a response.

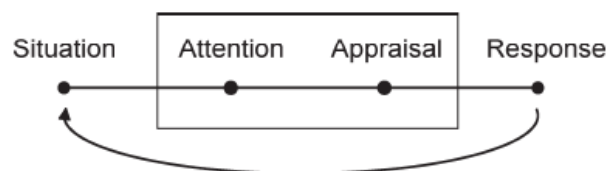


Fig.1. Gross and Thompson's (2007) 'Modal-Model' of emotion from (Gross and Thompson, 2007; Lewis et al., 2010, p. 499).

Other models of emotion regulation include The Process Model and Extended Process Model (EPM), which posit that a person could interrupt and influence an emotion at any point in the process; as a preventative measure, or 'antecedent-focused'; or as a responsive act, known as 'response-focused' (Gross, 1998). The key understanding

about these theoretical models of emotion regulation as it pertains to this study is that they break the emotion into stages. Five specific stages serve to explain how and when the appraisal process might be influenced, allowing for a more specific approach to teacher stress than addressing factors in the environment alone. These stages will be explained next.

The antecedent-focused action of 'Situation Selection' allows a person to intervene before the emotions even arise. This strategy takes advantage of the opportunity to decide which situations one might avoid or pursue in a way that leads someone to experience target emotions. By way of example, a teacher anticipating an overly difficult event at school may choose to be absent from school as a means to manage the emotions. If the emotions have arisen, the experiencer may then attempt a response-focused intervention, such as Situation Modification, which, as its name implies, is an attempt to change the situation. As an example, this strategy is used when a teacher decides to move a student's seat in the classroom to avoid further frustrations. If the situation cannot be selected or modified, a third family of regulatory processes comes into play known as Attentional Deployment. Once a teacher is aware that they are in a situation and it is being attended to in certain ways, they then might attempt to change how they are attending to that situation. For example, they may choose to ignore a student that they find particularly frustrating and, instead, attend to the needs of others. This shifting of attention maintains the goal of modifying part or all of the emotional experience.

Another emotion regulation strategy is Cognitive Change, which is the act of wilfully changing how one thinks about the situation. Cognitive-focused emotion regulation strategies (what is thought about the event), are "*conceptualized as the cognitive efforts to manage the intake of emotionally arousing stimuli*" (Compas et al., 2001, as cited by Legerstee et al., 2011, p. 320). This process is useful for regulating emotions about emotions (e.g. upset about being upset). They are also, perhaps, the most useful for teachers because they do not require externally facing actions. Furthermore, research has shown that they have a very measurable impact on the appraisal process that so powerfully influences an emotion (see, for example, Garnefski and Kraaij, 2006) and, to that end, this process will be discussed in more detail in the next section.

Finally, once emotions are playing themselves out, a person may try 'Response Modulation', which is an attempt to modify the experience, the behaviour, or the physiology, or all three, after the experience has taken place. Some may modulate their emotional responses through physical activity, discussions with colleagues, or with more maladaptive behaviours, such as drugs and alcohol, etc. Response modulation is also a strategy for regulating the emotions of others. For example, a teacher may spend time talking with a student who has recently had a strong emotional experience, such as devastation over failing an exam, with the intent to help 'calm them down' or to instil feelings of hope for future progress.

The key understanding for teachers is that they must have the capacity, ability and opportunity to conduct emotional labour and thereby regulate emotion responses if they are to be successful as educators (James and Connolly, 2009). Regulating the response to the emotion occurs according to a wider set of valuation systems that may be a function of several subsystems of valuation (Gross, 2015). For example, with regard to the emotions of teachers, Hargreaves (1998, p. 838) argues that emotions, "*are inseparable from their moral purposes and their ability to achieve those purposes.*" Although feeling and display rules play a role, therefore, the teacher's sense of moral purpose and their corresponding valuation systems will play a powerful role in influencing the decision about whether to regulate emotion, as well as what strategy to use in their present situation (Gross, 2015, pp. 130–131). In short, in order to regulate an emotion effectively and deliberately, a teacher must have an awareness of the emotion that is arising and a valuation system that is considerate of their social context.

In summary, teachers have the capacity to affect their perceptions of stress at various stages during the experience. Understanding emotions as the sum of many parts opens the door to a range of potential solutions to regulate the difficult emotions inherent to teaching. The capacity to regulate emotions effectively will affect the teacher and their ability to feel connected to their social group. In the next section, the difficult emotions provoked in teaching will be explored with the intention to understand how a teacher might best regulate those emotions.

## **The difficult emotions of teaching: anxiety and stress**

This section will explore the potential impact of anxiety and worry in the vocation of teaching. In order to contend with these emotions, it is first necessary to understand them by dissecting them into their respective parts. By doing so before introducing the term 'stress', the case will be made that emotions of anxiety and worry are easily obscured by- and often conflated with- the term stress. The section will then explore how each has the potential to leave lasting impacts on the teacher, students and the curriculum. Finally, the section will explore stress as it pertains to teachers, otherwise known as 'teacher stress', offer an understanding of coping with stress, and conclude by making the case for stress management as a function of teaching.

### **Anxiety in teaching**

Anxiety has been conceptualized as "*the tense, unsettling anticipation of a threatening but vague event; a feeling of uneasy suspense*" (Rachman, 2004, p.3). In other words, anxiety is a feeling that there is an impending problem that does not have a clear or viable solution, resulting in a state of perpetual heightened vigilance. Anxiety is characterized as thoughts, feelings and sensations that are "*diffuse, objectless, unpleasant, and persistent*" (Rachman, 2004, p.3). By convention, the physical symptoms, which are mainly due to autonomic arousal, could include internal feelings of tremor, shortness of breath, changes in blood pressure, or palpitations; whereas psychological symptoms may include hyper-arousal, apprehension, feelings of irritability and restlessness. The somatic response to anxiety is similar to fear. The nuanced difference is the temporal focus: arguably, fear refers to an immediate and 'real' threat, whereas anxiety refers to a perceived or imagined threat. Others have argued that "*fear involves the intellectual appraisal of a threatening stimulus; anxiety involves the emotional response to that appraisal*" (Rachman et al., 1986, p. 9). While the specifics may differ, the nature of the emotional threat is similar.

Learning is a process that involves emotion and change (Antonacopoulou and Gabriel, 2001). The changes are future-oriented and often unaccompanied by clear solutions, which is inherently uncertain and can therefore easily be perceived as threatening to a teacher's current sense of self. The 'threats' may be real or imagined, or both. For example, the feeling that one may be insufficiently qualified for future settings has been known to evoke feelings of uncertainty (Dale and James, 2015). When threats are "*non-*



*specific and future oriented, there are no clear avoidance options,”* the result is feelings of *“apprehension and indecision”* (Sylvers et al., 2011, p. 124). This system of self-preservation is ‘hard-wired’ to respond; however, due to the non-specific nature of a threat, the mind becomes increasingly occupied with thoughts that project into the future in accordance with unknown changes.

Anxiety can be experienced independently from any internal or external stimuli. It may be *“stimulus related (state anxiety) or general in nature (trait anxiety)”* (Muschalla et al., 2013, p. 415). Sylvers et al. (2011) noted that the definitional boundaries between trait and state anxiety remain controversial, as they do also with trait and state fear, although the constructs are seen as interchangeable (see also, Beck et al., 2005). One type of state-anxiety is known as job-anxiety. The specific type of job-anxiety that occurs for a teacher when at school, or when thinking about school, is known as *‘Teacher anxiety’* (Muschalla et al., 2013). Teacher anxiety can influence the extent to which a teacher experiences the following:

*feelings of satisfaction or dissatisfaction with his or her job* and life situation more generally, which may influence this individual's commitment level to his or her work. (Montgomery and Rupp, 2005, p. 466, my emphasis).

Researchers have repeatedly concluded that teacher anxiety is particularly concerning because of the potential for negative impacts on the teacher and in turn, students (Coates and Thoresen, 1976; Keavney and Sinclair, 1978; Sinclair and Ryan, 1987).

A plethora of research on anxiety suggests that it has a relationship to stress (for examples, see: Baldwin et al., 2008; Gunnar and Quevedo, 2007; Montgomery and Rupp, 2005). Anxiety may be *“a normal response to threat or stress”* or it may *“occur in the absence of stress”* (Baldwin et al., 2008, p. 415). While stress is not contingent on anxiety, nor is anxiety a prerequisite for a stress response, challenging events do serve to activate a stress response (see Keller et al., 2012) and, certainly, anxiety can be challenging. Some have argued that the term stress is a ‘safe’ way of articulating more complex anxieties, and other difficult emotions. For example, Hepburn and Brown (2001, p. 702) write that ‘stress’:

does not have the strong connotations of individual pathology that some kinds of psychotic illness might have, but at the same time it alleviates personal responsibility.

Put differently, anxiety may be a less socially acceptable emotion than stress, because it implies non-specific, unsolvable problems; whereas, stress, implies a sense of specificity and therefore an opportunity for control over the outcomes. This illusion of control, whether for the self, or others, or both, displaces the power of anxiety onto the outside world in a manner that is rational and identifiable, rather than as a way that emotional and uncertain. In short, anxiety and its symptoms are stressors to which stress is a socially safe response.

## Stress

Stress is considered to be the result of “*an imbalance between risk and protective factors*” (Prilleltensky et al., 2016, p. 105). This imbalance is known as the *Transactional model of stress*, which posits that stress is the result of demands exceeding resources (Lazarus, 1966). Resources and demands can be real or imagined, internal or external, or some combination of these. As Lazarus (2000, p. 665) describes, “*the conceptual bottom line*” of stress is:

The *relational meaning* that an individual constructs from the person-environment relationship. That relationship is the result of appraisals of the confluence of the social and physical environment and personal goals, beliefs about self and world, and resources” (Lazarus, 2000, p. 665, *his emphasis*).

Drawing on this analysis, Montgomery and Rupp (2005) explains that stress can be conceptualized as the intersection of situational and personal characteristics.

The notion that stress is unpleasant is seen throughout the literature; most researchers agree that the subjective experience of stress is commonly negative (for examples, see: Gunnar and Quevedo, 2007; Martin, 2014; Montgomery and Rupp, 2005). Stress is often conflated with other difficult emotions, such as anxiety, and these negative feelings about stress, even when very little stress is reported, can have significant consequences for health (Keller et al., 2012). For example, at extremes, “*consequences of prolonged stress include adverse psychological and physical health effects*” (Keller et al., 2012, p. 677). To perceive stress as exclusively negative, however, reflects a misunderstanding of the function of stress.

Psychological stress is better thought of as a neutral reaction, or chain of reactions, aimed at addressing emotional or cognitive stressors for the purposes of self-preservation (Martin, 2014; Obholzer et al., 2003; Wolf, 1960). Stress is made complicated, therefore, not by the stressors themselves, but rather by the ‘appraisals’ to which Lazarus referred. As Derogatis (1987) explained, the experience of stress is deeply influenced by at least three main factors:

personality mediators (constructs of time pressure, driven behaviour, attitude posture, relaxation potential, and role definition); environmental factors (constructs of vocational satisfaction, domestic satisfaction, and health

posture); and emotional responses (constructs of hostility, anxiety, and depression). (Derogatis, 1987, as cited by Montgomery and Rupp, 2005, p.460)

The key understanding being that the experience and ensuing impacts of stress are largely determined by factors other than the stressors themselves.

Many constructs, anxieties and stressors are work-related; as such, people often experience 'work-related stress'. This stress can be broadly conceptualized as "*a harmful reaction that people have to undue pressures and demands placed on them at work*" (Buckley, 2015, p. 3). In other words, when the risk factors are work related, the result is work-related stress. Notably, Briner (1999) points out that because the term stress itself is referring to a non-specific state, the link between school outcomes (i.e. turnover, absenteeism, performance) and stress is very weak. Still, people continuously attempt to regulate this emotion through 'Situation Selection' (i.e. avoiding the situation via work absenteeism). One study found that, in the UK, stress-related illnesses accounted for "*35% of work related ill health and 43% of days lost, in 2014/15*" (Buckley, 2015, p. 8).

## Difficult emotions in teaching

Stress and anxiety take a distinctive shape for teachers because stressors can be relatively separate from the school setting or related to the contextual field of education (Hepburn and Brown, 2001). Contending with stress continues to be a major issue for many teachers. In the United States, a survey conducted in 2004 claimed that factors contributing to stress were the reason that *“more than 25 percent of midcareer teachers and nearly 30 percent of newer teachers plan to leave the system”* (Botwinik, 2007, p. 271, citing Miller 2004). Similarly, in 2009, another study reported that nearly half of the teachers surveyed identified themselves as *“disheartened”* with teaching (Richards, 2012, p. 300, citing Johnson, 2009). In 2013, the UK’s National Union of Teachers (NUT) reported that stress alone resulted in half of all teachers contemplating leaving teaching as a profession. Similarly, a 2015 poll of teachers in England found that more than half of all respondents were thinking of leaving the profession in the next two years (Boffey, 2015).

One might take a critical position toward the aforementioned polls and argue that they are intended to promote the agenda, power and influence of teachers’ unions; clearly half of the teachers in England did not leave since the 2015 survey. Further, one might say that these data are signs of increasing disaffection for teaching, which is itself interesting but not exclusive to the vocation. Nonetheless, at least one conclusion can be drawn safely: the issue of stress in teaching is having serious repercussions on teachers.

The issue of what is causing teacher stress is up for debate: Is it the result of factors that are internal, cumulative, in relationship with one’s system of appraisal, or is it the result of matters that are exclusively external- a simple mismatch between resources and demands? Researchers of emotion (see: Aldao et al., 2015, Barrett and Gross, 2011, DeSteno, 2013) have reliably identified the internal mental appraisal process as the central factor underpinning all stress. The claim is that the meaning people make from interactions with others, events and objects is a more reliable predictor of the psychological stress response than the stressors themselves.

Taking a somewhat different view, educational researchers have split the blame between these internal factors and specific stressors, or objects that teachers call stressful. For example, in their text titled: *“Teachers under pressure: Stress in the Teaching Profession,”* Travers and Cooper (1996) conceptualize teacher stress

according to the list of issues (i.e. stressors) that teachers so commonly report as stressful, including school-based relationships and organizational power structures. Additionally, they call attention to the interpersonal difficulties that arise within teacher-student relationships, among their peers and through teacher-administrator relationships. Interestingly, they mention the role that internal factors (i.e. a teacher's personality, preferred coping style, etc.) play in the experience, but only insofar as those factors increase the likelihood of a teacher experiencing stress. Many studies have echoed these claims, including one by Richards (2012, p. 303) who reported that amongst public school teachers in the United States, teacher stress was due to issues including the following: lack of time, pacing and testing of the curriculum, behaviour problems, excessively large class sizes, lack of support, lack of input into decision making, as well as interpersonal feelings of being disrespected by non-teachers, and feelings of isolation to the extent that it does "*not feel safe to speak my mind with colleagues or administrators.*"

Going somewhat further, some researchers have instead built the case that stress is solely the result of agreed-upon external stressors. For example, educational researchers, such as Kyriacou, who coincidentally claims to have coined the term 'teacher stress' in 1977, wrote:

The main sources of stress facing teachers are: teaching pupils who lack motivation; maintaining discipline; time pressures and workload; coping with change; being evaluated by others; dealings with colleagues; self-esteem and status; administration and management; role conflict and ambiguity; poor working conditions. (Kyriacou, 2001, p. 29).

Complicating the matter, issues of self-esteem and status within a teacher's work are bound to their ability to teach as well as the ability levels of their students to engage with the work. Prillenltensky et al.(2016, p. 105) notes that the matters arising within the teacher-student relationship are major contributors to teacher stress, which they spell out as:

keeping up with paperwork, grading student work, dealing with student conflicts, doubts and worries about personal competence, and feelings of insufficient job preparation.

The key take-away from each of the positions on stress is that teacher stress is unavoidable and is experienced with a frequency and intensity that is in a relationship distinctive to the settings and wider systems of education in which they work. As Dunham (1992) highlights, stress is so common in teaching that its prevalence alone could become a dignified bonding experience for teachers,

## Transactions and processes contributing to teacher stress

When attempting to understand how teachers' stress plays out in the context of a school, there are two perspectives: cause and effect or transactions and processes (Briner, 1999). Jack Dunham who wrote the book *Stress in Teaching* (Dunham, 1992) first identifies a range of 'causes' of teacher stress, such as role ambiguity, educational change, and a host of other 'stressors' that teachers face, before then offering suggestions and ideas for stress reduction strategies. Dunham's (1992) perspective reassures teachers that stress is a predictable experience and accordingly, he offers a six-point plan to best reduce it. Steps of the plan include 'identifying stressors', coping strategies and stress reduction programmes (Dunham, 1992, p.123).

The repeated notion that teacher stress can be directly linked to external stressors is partly a consequence of the language behind a question to the effect of: 'What are you stressed about?'. These questions focused on stressors (which often derive from people in positions of symbolic social authority) imply to the respondents something subtle about stress: talking about it should communicate blame. Certainly, as Dunham (1992) points out, the environment and its stressors have a relationship to the stress, but this view lends a disproportionate focus to the external, which appears to have two unintended auxiliary effects: 1) it naturally shifts attention away from the role of the mental appraisal process and the more subtle and specific emotions that formulate 'stress' (i.e. moods, meta-moods, emotional judgements) and 2) it implies that stressors are inherently problematic. To that end, people, and in particular teachers, have responded by listing an array of objects/people/ systems that elicit stress. In a meta-analysis of 65 independent studies on teacher stress, Montgomery and Rupp (2005, p.459) noted that "*a plethora of research on the different sources of stress*" in teachers exists. While these data have proven somewhat helpful in redesigning policy and systems for more efficiency, it leaves little room for people to discuss their experience with attention paid to their own appraisal framework.

Briner (1999) offers an alternative view -one that is more nuanced- that points out that this dichotomous cause-effect perspective is part of the problem. First, while stressors are widely experienced by many teachers, not all teachers experience stress uniformly. The stressors that are so often blamed for teacher stress are inherent to a teacher's experience and, for many teachers, they play a vital role in education, for



better or for worse. Further, Morrow (1994, p.18) wrote: "*stress, in measured doses, is a powerful emotional stimulant which can facilitate high levels of performance.*" In other words, the amount of stress is not what is problematic about feeling stressed. Indeed, one could infer that exposure to manageable stressors might add substantial value to a teacher's psychological development. Teachers have reported that overcoming the challenges of a difficult student-teacher relationship, for example, can be quite rewarding (Hamre and Pianta, 2006). Put differently, teachers that have engaged with the aforementioned stressors have not had uniformly stressful experiences; indeed, some have benefited as a result of them. So, while the identification and management of external teacher-specific stressors constitute the shared foci of most studies regarding teacher stress, the quantity or type of stressors to which one is exposed are distinct to the ways in which one appraises and thus regulates the emotions of the ensuing stress. The term 'teacher stress' is a useful heuristic to understand the potential impact that school-related stressors hold for a teacher and their wider school environment, but it oversimplifies the problem.

Undoubtedly, stressors contribute to stress, but this raises another problem in relation to cause and effect: stress is understood as a challenge of symptom management. This view leaves little room for policies and interventions that have a stress-buffering effect and shifts responsibilities onto teachers for managing their own reactions. A more nuanced view of stress is that it is best understood in terms of transactions and processes (Briner, 1999). First, teacher stress occurs in the context of a personal narrative where it has a past, present and an anticipated future. For example, a teacher who starts a day off with little sleep might be more easily triggered to anger by essentially meaningless events at school. In other words, stress is partly an unfolding relationship between a teacher and their school, as well as a relationship between judgements about stress. This will be explored more fully next.

Secondly, teacher stress has many parts; for example, it is a mix of cognition, reactions, behaviours, expressions and goal structures (Briner, 1999). Since each of these aforementioned domains are affected by their own respective meta positions (i.e. thoughts about thoughts, feelings about feelings, reactions toward reactions, etc), teachers are at risk of both stress and of feeling something other than what they think

they should be feeling, which can lead to emotional dissonance. These meta-positions are addressed in a forthcoming section on coping with teacher stress.

The unfolding timeline, along with each of these domains, offer new potential avenues for understanding and thereby, managing stress. This more subtle and specific view allows stress to be a function of characteristics and routines, rather than only events. While some researchers on teacher stress (see, Dunham,1992), view it in terms of causes and solutions, it is also useful to reconceptualize stress and interventions in relation to processes and transactions (Briner, 1999).

## **Reconceptualising the notion of stress: simple and complex**

For the purposes of this study, and clarity in the wider research field, it would be advantageous to delineate between two interpretations of 'teacher stress': 'Simple' and 'Complex'. Simple stress is conceptualized as the result of a mismatch between resources and external demands. The term 'simple' speaks to 'causes and effects' and the external nature of quantities of resources or demands, which are expressible in measurable terms. Simple stress is mediated by problem-focused, typically external, solutions. In an educational setting, for example, an excessively large class size might be stressful; yet, it is a problem that could be solved by moving students. Complex stress is conceptualized as a mood, feeling or experience that occurs repeatedly, often based on the accumulation of stressful events unfolding and compounding over time. It is the by-product of the person-environment relationship and its impacts may be diverse, cumulative and persistent. Specifically, complex stress is the result of personality mediators, environmental factors and emotional responses to an external stressor that could be real or imagined. The term 'complex' further speaks to 'transactions and processes' and the affective experience of stress. Complex stress is internal (i.e. emotionally challenging) and therefore best mediated by emotion-focused solutions that are considerate of beliefs about stress. In an educational setting, for example, complex stress may emerge from a difficult relationship with authority or environmental factors (e.g. living abroad); therefore, the solutions are not apparent and the stress may be continual.

Conceptualising stress as according to these two domains, rather than as a single and uniform experience, opens the door for more articulate discussions and potential solutions regarding this issue. Using the term without specificity has hitherto limited the viability of any form of teacher-stress management (i.e. coping) and is partly why the problem has thus far gone unresolved. Between the two interpretations of stress, however, there appears to be an asymmetrical preference for claims about simple stress, which has observable sources, and which offers more plausible causes and, therefore, solutions. As Hepburn and Brown, (2001, p. 692) write

Teaching unions have tended to regard 'hard evidence' about the effects of teacher stress as strategically useful material to mobilize in disputes.

The disproportionate focus on stressors has encountered challenging theoretical and empirical difficulties when the issue of coping with these stressors arises, however. Certainly, both forms of stress contribute to issues of burnout, school climate, issues of productivity, etc.; however, additional resources or systems alone do not mediate complex stress (as conceptualized above). Moving forward, therefore, this study will attempt to tease apart the literature on coping with the broadly-understood concept of 'teacher stress' into a more nuanced discussion about the internal systems of appraisal that are foundational to coping with complex stress.

## Coping with teacher stress

As mentioned, a teacher's ability to cope with complex stress is partly impacted by their understanding of social expectations and cultural norms. The literature argues quite extensively that one must cope with emotions, especially difficult ones, according to perceptions of socio-cultural norms and the 'display rules' of the particular social context (Hochschild, 1983). Emphasizing this point, Chang (2013, p. 800) explains:

Teachers sometimes believe being angry is not appropriate for their professional image in the classroom.

Similarly, Sutton (2004, p.379) noted:

many teachers believed that regulating their emotions helped their teaching effectiveness goals and/or *conformed to their idealized emotion image of a teacher.*" (my emphasis).

Briner (1999) suggests that when human resources are limited, the effort needed to contend with difficult emotions is secondary to completing a task efficiently. At a minimum, research suggests that teachers are expected to manage emotions in a manner that is 'appropriate' and that these demands can contribute to emotional exhaustion and eventually to mental and physical health symptoms typically associated with chronic stress (Hepburn and Brown, 2001). It is this private nature of coping, which often demands forms of expressive suppression and surface acting in addition to the effort needed to deal with the stressful situation (i.e. emotional labour), that can complicate the coping process. Additionally, the insistent focus on simple stress (i.e. stressors and the environment) has, paradoxically, also limited the viability of any form of stress management for teachers and educational leadership. Socio-cultural norms around coping can be highly problematic for teachers.

If they are to regulate the difficult emotions associated with stress effectively, prevailing theories suggest teachers must also seriously consider the role of the mental appraisal process (Lazarus, 2000, Keller et al., 2012). This mental appraisal occurs in two stages: primary and secondary. Expanding on these stages, Montgomery and Rupp (2005, p. 461) explained:

primary appraisal refers to the appraisal of the stressful character of the situation, whereas secondary appraisal refers to the evaluation of an individual's capacity to confront the situation.

Chang (2013, p. 801) noted that "*primary appraisals are believed to be the driving force in the emotional processes,*" whereas secondary appraisals evaluate various options for coping.

Kyriacou's (2001) conclusions about teachers' options for coping were believed to be either: '*direct action techniques*', which are the physical activities aimed at physical relief, or '*palliative techniques*'. These are believed to be '*mental strategies*' aimed at emotional relief (Robertson and Dunsmuir, 2013, p. 216). Prevailing theories of emotion regulation suggest that a teacher can use these strategies as a preventative measure, also referred to as antecedent-focused, or as a responsive act, known as response-focused (Gross, 1998). In summary, emotion regulation of teacher stress can be antecedent, palliative/ emotion-focused, or problem-focused, taking direct-action as a response.

Research suggests that determining which of these two approaches holds the most promise for teachers will have an impact on the future of teaching. At a minimum, a teacher's ability to regulate their emotional responses will heavily impact the ways in which they experience and respond to anxieties, their classroom, colleagues and the wider organization, both consciously and unconsciously (Chan, 2008; Montgomery and Rupp, 2005). There is evidence that points to ways for teachers to limit the impacts of stress. For example, in one major study, which investigated data on the emotional episodes of 492 teachers working in K-12 education, proactive coping and problem-focused coping were both negatively correlated with burnout, whereas expressive suppression (emotion-focused coping) was found to be a contributing factor to increased stress (Chang, 2013). Other studies have confirmed that problem-focused strategies, or 'taking action' are generally more functional than emotion-focused strategies (see: Garnefski and Kraaij, 2006; Lazarus, 1966; Thoits, 1995). The viability of the former, however, is heavily constrained by factors within a teacher's environment, including the ways in which someone under stress is perceived by the organisation. Neatly capturing this experience, Hepburn and Brown (2001, p. 694) write:

To suffer stress is, in effect, to admit one's inability to contribute adequately to the organization, leading to the employee being 'invited' to address their own shortcomings through expert counselling or personal improvement programmes.

### **Concluding Comments**

Extending the above, it seems as though educational researchers, major teacher unions and most of the field of education are not in agreement about how teacher stress could best be mediated. Researchers continue to test solutions that place the problem squarely with the teacher's relationships, with the school and its leadership, the environment, or some combination of these. Attempts to micromanage stressors has had some impact on simple stress, but there is no substantive body of evidence to suggest that addressing complex stress through school culture, or teachers' personal well-being has helped educational leadership advance a viable long-term solution to the issue. Although schools clearly need to pay attention to these factors (environment, stressors, culture, etc.), and teachers need some stress to avoid total disengagement, it must be recognized, that teaching, supporting and helping others is often at the expense of self-care. The emphasis on others often facilitates suppressive behaviour, which perpetuates the problem of teacher stress. Although 'problem-focused strategies' for coping have shown promise, these 'direct action techniques' are, by definition, a response to a stressor. Thus, such steps are limited by what is deemed to be socially normative behaviour, which does little to mediate stress in the first place. Explaining this, Chang (2013, p. 802) draws a clear line connecting "*emotion regulation strategies like suppressing, faking, or hiding true emotions*" to the two concepts known as "*emotional exhaustion*" (Brotheridge and Grandey, 2002) and "*teacher burnout*" (Carson and Templin, 2007). Others have made this point as well; including Barber et al. (2011), who pointed out that research has not explicitly tested emotion regulation strategies that meet the demands of the 'display rules' that underpin a school environment. To that end, a preventative measure (i.e. antecedent-focused) that is palliative and emotion-focused may be more promising. Such a solution, however, takes aim at the appraisal process rather than the stressor itself, meaning it is far less obvious as to whether such a regulation strategy might result in an outward emotional display that is believed to be 'appropriate'.

To understand how a teacher might respond to stress via the appraisal process, rather than the stressors, this thesis will take specific aim at three possible strategies for managing teacher stress, each of which are considerate of unwritten social norms that encapsulate the expectations for private coping. This exclusionary criterion for the range of strategies available takes account of the possible discrepancy between a teacher's inner emotional experience and their emotional display. This discrepancy can lead to emotional dissonance; thus, the most useful strategies are those that "*result in an outward emotional display that matches the display rule*" (Barber et al., 2011, p. e174). The first is a direction-action, response-focused technique for emotion regulation known as cognitive emotion regulation. The second is an antecedent-focused, palliative strategy known as Mindfulness Based Stress Reduction. The third strategy, which includes the quality of 'Mindfulness,' is 'Self-Compassion'. Each takes account of emotional labour and can operate under the socially normative demands of a school setting.



## Cognitive emotion regulation

For Garnefski et al. (2002, p. 11), 'cognitive emotion regulation' [C.E.R] strategies are 'direct action techniques' that refer to nine unique and "*essentially stable styles of dealing with negative life events.*" As DeSteno et al. (2006, pp. 627-628) noted, "*emotions exert their influence on cognition and behaviour through conscious and non-conscious processes.*" It follows, therefore, that cognition could influence behaviour. These are quite different from the behavioural strategies (what is done about the event). For example, thinking about what one could do, or making plans, is a form of emotion regulation that is conceptually different than taking physical action. These strategies are also different from '*palliative action techniques*' in that they are solution-focused, with attention on the stressor (object or event), rather than on its emotional effect. Garnefski et al. (2007, p.142) conceptualized nine cognitive emotion regulation strategies that each refer to what someone thinks in response to a stressful event; they are as follows:

*Self-blame* refers to thoughts of putting the blame for what you have experienced on yourself. *Other-blame* refers to thoughts of putting the blame for what you have experienced on the environment or another person. *Rumination*, or focus on thought, refers to thinking about the feelings and thoughts associated with the negative event. *Catastrophizing* refers to thoughts of explicitly emphasizing the terror of what you have experienced. *Putting into perspective* refers to thoughts of brushing aside the seriousness of the event/emphasizing the relativity when comparing it to other events. *Positive refocusing* refers to thinking about joyful and pleasant issues instead of thinking about the actual event. *Positive reappraisal* refers to thoughts of creating a positive meaning to the event in terms of personal growth. *Acceptance* refers to thoughts of accepting what you have experienced and resigning yourself to what has happened and *Refocus on planning* refers to thinking about what steps to take and how to handle the negative event. .

All of the nine listed strategies are an extension of the appraisal process that is so fundamental to summative perceptions of teacher stress, and there is an entire body of literature on each. The crucial understanding is that the first four are considered to be

maladaptive and have shown consistent statistically-significant relationships with emotional problems in an array of studies (Carson and Templin, 2007).

CER strategies can be both conscious and unconscious. Unconscious activities, (e.g. denial, projection) are sometimes unavoidable and self-perpetuating. For example, worry is a form of cognitive emotion regulation: it is the mind's way of "*maintaining awareness of unresolved problems*" (Delgado et al., 2010, p. 873). Worry acts to resolve problems, but it does not care if the problems are resolvable. Since many problems in the world of the teacher may not be resolvable (for example, the act of balancing role ambiguity against organizational objectives), they may set off a series of "*negatively affect-laden and relatively uncontrollable thoughts and images that promote mental attempts to avoid anticipation of potential threats*" (Borkovec, 2002, as cited by Delgado et al., 2010, p. 873). Research has shown that excessive attempts to avoid these mental events serve, paradoxically, to strengthen them and increase the likelihood that they will endure (Sylvers et al., 2011). Repeated and unsuccessful mental attempts to cope with worry can lead to anxiety, which alone is sufficient to activate a range of cognitive and emotional defence reactions, including further worry. Worry about worry is known as thought *rumination* and is considered to be a maladaptive form of emotion regulation because of its ability to occupy the mind and escalate a difficult emotion, like anxiety (Borders et al., 2010). Indeed, research suggests that teachers with high perceptions of stress and anxiety will have an increased bias towards information that is deemed as threatening towards their own self-conception and engage with mental ruminations and worry (Lapointe et al., 2013). By definition, these cognitive strategies can consume a teacher's mental activity.

On the other hand, the conscious activities are the self-regulating components of emotion regulation. In theory, teachers that use the adaptive techniques more frequently should also have lower levels of perceived stress because the cognitive techniques allow them to alter the meaning of the event. In short, these thinking strategies target the appraisal process directly. An emerging body of research has found that cognitive emotion regulation is a reliable predictor of stress and anxiety (for example, Martin and Dahlen, 2005). This review, while exhaustive, could only find one study on teachers' levels of perceived stress as it related to C.E.R., however. That study found that teachers' perceptions of stress dropped with increased use of *positive*

*reappraisal*, specifically (Gliebe, 2013). Other studies, which were not conducted on teachers, have found that those who have the highest amounts of stress tend to engage in *catastrophizing* and *other-blame* (Garnefski and Kraaij, 2007).

There have been some critiques of CER that must be addressed. One study investigating CER's capacity to control affective responses under stress is inherently limited because "*stress markedly impairs the cognitive regulation of emotion*" (Raio et al., 2013, p. 15139). It is necessary to emphasize, however, that this study appears to confuse external pain with the concept of mental anguish and suffering about the pain. The study design applied a mild electric shock, which resulted in a limited capacity for higher cognitive processes, and then reported the changes in affective outcomes. Indeed, this highlights the difficulty of thinking clearly when faced with the fear of an immediate and controlled threat. The findings also bring to the fore differences between interpretations of stress as either complex or simple. This stressor, while physically painful, poses little psychological threat to the sense of the self. This is another key difference between fear and anxiety, as discussed above (e.g., recall that "*fear involves the intellectual appraisal of a threatening stimulus; anxiety involves the emotional response to that appraisal*"). To that end, even if this study were aiming to test C.E.R., in a controlled lab environment, there are clear solutions available (i.e. simply by opting out of the study) and a clearly defined purpose (completing the study). These are not viable solutions for teachers. It should not be assumed that one could simply think their way into relief from physical pain; however, CER could reappraise its meaning and reduce the suffering. Moreover, it is not known how these CER strategies interact synergistically, rather than individually, with perceptions of stress.

Research into using emotion regulation to address teacher stress should be encouraged by the capacity for CER to meet the demands for the private and individual nature of cognitive coping. As Kyriacou's (2001) study points out, a teacher's stress is a multifaceted blend of distinctive emotional, physical and sensational experiences. To that end, the emotion regulation process might be better served by a solution that is antecedent and emotion-focused (i.e. palliative), and which also takes account of the cognitive appraisal process. One such solution that has emerged recently is mindfulness mediation as taught in a course known as Mindfulness Based Stress Reduction, or MBSR, which will be detailed in a forthcoming section.

## **Mindfulness and Self-compassion**

The following section will begin by addressing the growing influence of mindfulness. It will then offer an initial operational definition before reviewing the literature surrounding the current understanding of the effectiveness of mindfulness in the context of education.

## **The growing influence of mindfulness**

From the early 1960s until the 1990s, the range of scholarly publications regarding mindfulness and mindfulness-based interventions increased only modestly. In the decades following, however, there has been a rapid growth in interest, to the extent that, by 2013, the prominence of mindfulness had led some to coin the term “*McMindfulness*” as a tongue-in-cheek reference to highlight how “*mindfulness meditation has become mainstream, making its way into schools, corporations, prisons, and government agencies including the U.S. military*” (Purser, 2013). Continuing into 2014, the concept of mindfulness received media attention from Time Magazine in an article entitled: “The Mindful Revolution” (Pickert, 2014).

Today, the books in publication that use or reference the word “mindfulness” in one form or another have expanded into a wide range of disciplines, including the following:

Clinical and health psychology, cognitive therapy, and neuroscience, and increasingly, there is growing interest, although presently at a lower level, in primary and secondary education, higher education, the law, business, and leadership (Williams and Kabat-Zinn, 2011, p. 2).

A search on the topic of mindfulness in the ISI Web of Knowledge Database search engine, which collects only empirical and peer-reviewed research, during the time frame of 2005-2010, returns 1582 papers. Since 2011, that number has nearly quintupled; the field of literature saw an additional 7261 peer-reviewed papers published as of September 2015. Overall, therefore, within the Western world, the surge in interest and research on the Eastern practice of mindfulness meditation from mainstream media outlets to academic literature has been astonishing.

## Conceptualising mindfulness

Although the private practice of ‘mindfulness meditation’ has been the subject of public interest and a diverse range of empirical investigations (Kabat-Zinn, 2003; Kuhlmann et al., 2015; Meiklejohn et al., 2012; Schoenberg et al., 2014; Waters et al., 2014) it would appear that the field of enquiry has begun to develop ahead of an agreed-upon operational definition. Williams and Kabat-Zinn (2011, p. 12) point out that:

Many may feel that the essential meaning of mindfulness may have been exploited, or distorted, or abstracted from its essential ecological niche in ways that may threaten its deep meaning, its integrity, and its potential value.

This sentiment is echoed by Bodhi (2011), who wrote:

We take the rendering ‘mindfulness’ so much for granted that we rarely inquire into the precise nuances of the English term, let alone the meaning of the original Pāli word it represents and the adequacy of the former as a rendering for the latter. The word ‘mindfulness’ is itself so vague and elastic that it serves almost as a cipher into which we can read virtually anything we want (p. 22).

The language ‘Pāli’ referenced above refers to the language of discourse in northeast India, approximately 2500 years ago; the time and birthplace of the Buddha. The Pāli Nikāyas is literally translated as ‘discourse collection’, which is relevant because Buddhist teachings and traditions, including those relating to mindfulness, were initially carried into the next generation through traditions of oral story telling (Bodhi, 2011). Eventually, Buddhist teachings were recorded in The Dharma, “*which carries the meaning of lawfulness as in ‘the laws of physics’ or simply ‘the way things are’*” (Kabat-Zinn, 2003, p. 145).

The variety of definitions available demonstrates a problem inherent to the hermeneutics of ancient religious texts. For example, The Oxford English Dictionary web-edition (2010, n.p.) defines Mindfulness as the following: “*The quality or state of being conscious or aware of something*” and:

A mental state achieved by focusing one’s awareness on the present moment, while calmly acknowledging and accepting one’s feelings, thoughts, and bodily

sensations, used as a therapeutic technique.

The word 'mindfulness' has also been equated to an "*acceptance-based intervention*" (Noone and Hastings, 2010, p. 67). Likewise, mindfulness has been parenthetically juxtaposed to "*Attentional Control Training*" (Teasdale et al., 1995, p. 25). It is also thought of as follows:

a psychological perspective and interrelated with Western psychology in general, and cognitive science, behavior modification, psychoanalysis, and transpersonal psychology, in specific. (Mikulas, 2007, p. 46).

Attempting to be more precise with definitions, multiple scholars on the matter have agreed to a single definition: "*the awareness that arises through 'paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally'.*" (Keng et al., 2011, p. 1042, citing Kabat-Zinn, 1994, p. 4).

As shown above, modern interpretations might include: a state of being that can be achieved, an acceptance-based therapeutic technique, an approach to stress management, a form of mental training, and a state of awareness that must be cultivated, paying attention in a particular way. In a sense, it is all of these things, while at the same time, it is none of these things; just as one could disassemble a car into its thousands of parts and yet still never find the parts which define the concept of a car. Nonetheless, all definitions share three core components. These are summed up concisely in Germer et al.'s formulation of mindfulness, which is as follows: "(1) *awareness*, (2) *of present experience*, and (3) *with acceptance*" (Germer et al., 2005, p. 8).

These aspects of mindfulness each form part of a larger antecedent-focused palliative mental and emotional framework that functions to engage with emotions and thoughts of the present moment directly and fully, regardless of their ideological or conceptual affiliations. The aspect of acceptance should inoculate a teacher from the notion that mindfulness meditation is a tool for reducing stress. Instead, remaining mindful is a proposed method to pre-emptively and productively influence the appraisal process that is so fundamental to the experience of teacher stress. How one might go about securing these attributes is up for debate. Many researchers have attempted to capture the effects of mindfulness training by utilising a training programme known as

Mindfulness Based Stress Reduction, or MBSR. The next section will explore the effects of participation in this course more deeply.



## **Mindfulness Based Stress Reduction as an independent variable**

The lion's share of the data on the effects of mindfulness has been derived from studies investigating one of the most widely implemented Mindfulness Based Interventions, herein MBI, is known as Mindfulness-Based Stress Reduction, herein MBSR. The MBSR programme is described as *"nonreligious and nonesoteric, is based upon a systematic procedure to develop enhanced awareness of moment-to-moment experience of perceptible mental processes"* (Grossman et al., 2004, p. 35). According to Keng et al. (2011, p. 1044), the programme unfolds along the following premise:

The premise of MBSR is that with repeated training in mindfulness meditation, individuals will eventually learn to be less reactive and judgmental toward their experiences, and more able to recognize, and break free from, habitual and maladaptive patterns of thinking and behaviour.

The MBSR programme takes aim at changing cognitive processes (i.e. an antecedent - focused strategy) in order to achieve cognitive outcomes, which in turn, have been shown to correlate with reduced psychological and physiological problems. The course is predicated on the belief that: *"mindfully attending to negative emotional states lets the meditator eventually realize that such emotions need not be feared or avoided"* (Sedlmeier et al., 2012, p. 1144). So, despite the words 'stress-reduction' being explicitly stated in the title of the MBSR course, the goal is not to reduce stress. On the contrary, this course aims to change the way in which one cognitively relates to one's stress and other emotional experiences before they arise. The 'change', as it were, is paradoxical, in that meditation facilitates a deliberate progressive movement towards non-judgmental acceptance of what is, regardless of the positive or negative connotations associated with the emotional experience. That is to say that the underpinning belief is that stress – or any negative emotion – is not at the root of suffering, but rather it is the desire to evade the experience that is problematic.

MBSR aims to make these changes through an eight to ten-week training regimen that follows a version of meditation called Vipassana (Theravada Buddhist). Weekly sessions run for about 2.5 hours with each session typically including *"body scan exercises and selected exercises from hatha yoga"* (Sedlmeier et al., 2012, p. 1141). Because outcomes of mindfulness are predicated upon a systematic approach with regular practice, participants commit to carry out at least 40 minutes of practice each day in between

sessions. The course is run for groups of 10 to 40 participants and “*may be either heterogeneous or homogenous with respect to disorders or problem areas of participants*” (Grossman et al., 2004, p. 36).

In addition to the exercises above, participants are exposed to some elements of cognitive based therapies along with empirical information about the body’s relaxation response and other ways that the mind and body have co-evolved to cope with a range of ailments, including chronic illnesses. Research has focused on the outcomes of this course, as well as modified versions of it, particularly because of the instructor-training standards and prescriptive guidelines for at-home practice; variables that lend themselves to testable hypotheses in ways that more individualized programmes cannot.

### **Sources of data**

Despite the therapeutic promises of MBSR programmes that are peppered throughout the current literature base, the degree to which MBSR is deemed therapeutic “*for reducing stress, anxiety, and depression associated with physical illness or psychological disorders*” has been inconsistent (Khoury et al., 2013a, p. 765). Multiple meta-analyses (e.g. Eberth and Sedlmeier, 2012; Hofmann et al., 2010; Khoury et al., 2013a; Sedlmeier et al., 2012) have uncovered that many of the current smaller-scale studies making claims about an intrapersonal practice are too weak to justify their findings on interpersonal outcomes, such as self-awareness or self-regulation. The problems were most pronounced in the heterogeneity of their methodologies. As Sedlmeier et al. (2012, p. 1140) wrote:

One rather common problem concerns study design: Many studies did not employ a control group but only a meditation group for which measurements were taken before and after an extended meditation period. Such a design has low internal validity because other potential causal factors (such as the impact of social gatherings, thinking about one’s problems, time passing by, etc.) cannot be controlled (see Rosenthal & Rosnow, 1991; Sedlmeier & Renkewitz, 2007).

The criticisms are not limited to the methodology, however. Other critics have suggested that these studies are overly affected by a range of other factors, including:

small sample sizes, biases and human influence, the trainer's experience, the participants' enthusiasm for and expectations of meditation, and other more extraneous factors like the therapeutic impact(s) of simply expanding one's social circle for eight weeks, and even the source of publication (e.g., Delgado et al., 2010; Grossman et al., 2004; Khoury et al., 2013a, 2013b; Sedlmeier et al., 2012).

Moreover, one factor that seems to affect outcomes of MBSR the most is the dose of the intervention. Notwithstanding the prescriptive eight-week duration of the MBSR programme, many studies have modified it to determine if results could be achieved sooner, as well as to uncover which effects might be seen at different stages. Baer et al. (2012, p. 755) found that "*significant increases in mindfulness occurred by the second week of the program*", which was followed by improvements in perceived stress by the fourth week of the eight-week programme. Another study saw "*significant increases in psychological health for measures of particular aspects of mindfulness and self-compassion*" (Bergen-Cico et al., 2013, p. 355). Furthermore, this study found "*significant improvements in psychological health, evident after a brief 5-week MBSR program*" (Bergen-Cico et al., 2013, p. 358). The researchers also found reductions in scores of anxiety, although to a lesser extent than in studies where participants practiced mindfulness meditation for longer durations.

In addition to inconsistency in the dose of treatment, mindfulness-based intervention studies have been faced with other problems. For one, the majority of studies are "*qualitative in nature and do not quantify the size of the treatment effect*" (Hofmann et al., 2010, pp. 169–170). As a result, extracting empirical evidence from the already limited base of research on MBSR alone is further complicated by data that has been derived from a mixture of MBIs, including versions of the MBSR course that have been abbreviated to fit the schedules and demands of particular vocations, such as college undergrads, or a cohort of teachers. In these studies, it is generally not clear if MBSR has addressed the underlying appraisal framework, or if has functioned as a form of symptom management. This would be particularly useful information to enable a better understanding of whether it is functioning as an emotion-focused, preventive response towards stress.

In summary, research has concluded that the effects of MBSR have been strongly correlated with the amount of time spent meditating; noting, "*the more the participants*

*practised, the more their mindfulness skills improved and the more their psychological symptoms were reduced"* (Baer et al., 2012, p. 756). Because the area of mindfulness research is relatively new, however, there is little data regarding the sustained effects of the MBSR programme. More specifically, it is unknown what impact participation in a MBSR course might have after a year, two years, five years, etc.

With the intention of gathering data that could apply to the foregoing discussions on the impact of MBSR on teacher stress in a foreign setting, the literature evaluated for the forthcoming section was constrained to the data that has been captured from meta-analytic studies investigating the effects of engaging with MBSR. Specifically, criteria for evaluation were as follows:

1. Without limitation to timeframe, studies were published; peer reviewed, and available in the English language.
2. Programmes emphasized the eight-week Mindfulness Based Stress Reduction (MBSR) course. In the cases where the course was modified (e.g. the discussions could be vocation-specific), the course remained similar in both training and duration.
3. MBSR courses were operationalized as the following:
  - a. Instruction by an experienced practitioner as part of a group training programme, i.e. individual training was not included.
  - b. Programmes were 5-12 weeks in length and included a daily personal practice requirement of at least 40 minutes of mindfulness meditation techniques.
  - c. Programmes emphasized non-judgmental or non-elaborative awareness with acceptance.
4. Programme outcomes were seen across at least two studies, which may or may not have used exactly the same MBSR course.
5. Findings were generalizable to the wider teaching population. For example, studies investigating the impact of mindfulness meditation on a specific ailment, such as an autoimmune disease, were omitted.

6. Studies adopted a particular focus on psychological outcomes, such as perceptions of stress.
7. Quantitative measures were available.

Based on the criteria above, only a handful of studies regarding the impact of MBSR on teacher stress emerged. Those will be reviewed in the next section.

## Effects of MBSR on educators

In at least two studies of educators found that a modified version of the MBSR course alone was not effective in reducing stress with statistical significance. One of these – a small-scale study of 36 public school teachers in the USA – reported: “*participation in MBSR did not significantly lower levels of somatization, depression, or anxiety*” however, there were “*reductions in each symptom category in the direction expected*” (Frank et al., 2013b, p. 214). By contrast, a different study reported lower perceptions of stress but also that:

The physiological indicators of stress we measured in teachers—blood pressure, resting heart rate, and cortisol levels— did not show statistically significant differences between the MT and control groups. (Roeser et al., 2013, p. 800).

Similarly, in a study of pre-service public school teachers in Hong Kong, there were no noteworthy differences in “*the combined measurement of depressive symptoms and perceived stress between the intervention and control groups;*” however, they too noted that “*the post-intervention means of both the intervention and control groups showed a consistent anticipated pattern in an expected direction*” (Hue and Lau, 2015, p. 389). In other words, among the studies on teachers, changes in perceptions of stress were not consistent, nor were they related to changes in biological measures of stress.

On the other hand, in a recent study that implemented an MBSR programme (admittedly tailored to include discussions for public secondary school teachers) participants reported:

significant diminution in their stress at post-intervention compared with individuals in the comparison condition; effects that were seen even when controlling for baseline imbalances between the two groups. (Beshai et al., 2015, p. 206).

Another study focused on the impact of MBSR on the stress of public school teachers in the US and Canada and found the following:

Teachers randomized to MT (mindfulness training) showed greater mindfulness, focused attention and working memory capacity, and occupational self-compassion, as well as lower levels of occupational stress

and burnout at post-program and at (three-month) follow-up, than did those in the control condition. (Roeser et al., 2013, p. 787, my additions).

This study appears to emphasize the importance of an antecedent focused approach to stress management that addresses the mental framework for appraisal over the accompanying symptoms.

One such emotion-focused mental framework that takes aim at the appraisal process has emerged from the research using MBSR as an intervention; it is conceptualized as 'Self-Compassion'. Self-Compassion is a relatively new construct. It was developed in 2002 as an "*alternative conceptualization of a healthy attitude and relationship to oneself*" (Neff, 2003, p.87). The construct will be explored more fully next.

## **Self-compassion: the key to mediating teacher stress?**

Although the findings presented above reveal that MBSR appears to lead to inconsistent outcomes for teachers, the construct of self-compassion was consistently related to stress. For Germer and Neff (2013, p. 857), “*self-compassion is simply compassion turned inward.*” More clearly put:

Self-compassion is composed of three components: self-kindness (i.e., treating oneself gently in the midst of suffering), common humanity (i.e., the ability to recognize that suffering and failures are shared with others), and mindfulness (i.e., the ability to observe and describe one’s thoughts without becoming overly engaged in them). (Raue-Bogdan et al., 2011, p. 273).

To that end, Self-Compassion (SC) is an emotion-focused construct that has been shown to speak to the internal factors which can predict how one might view oneself in the face of difficulties. In other words, SC could be conceptualized as part of the valuation system, which relates to the attitude towards emotions, and is also part of the emotional experience (Eid and Diener, 2001). Speaking to this, Robertson and Dunsmuir (2013, p. 227) wrote:

Stress interventions should therefore include the opportunity to challenge a situation’s ability to evoke a stress response by changing an individual’s irrational beliefs to more rational ones, for example, modifying excessively high expectations of self and others and teaching acceptance of what cannot be changed.

While SC can be cultivated through MBSR training, MBSR training tends to emphasize the aspect of mindfulness meditation alone, whereas the other two aspects of SC (i.e. self-kindness and common humanity) are readily available to all teachers, regardless of their affinity for a meditation practice. By way of example, in the study that found reductions in perceived stress after MBSR (referenced above), Roeser et al. (2013 pp. 798–799) explained that:

Teachers randomized to MT showed a greater endorsement of a self-compassionate mind-set at post-program and follow-up. This mind-set was characterized by a diminishment of self-judgment, self-criticism, and the personalization of stressful events and by an increase in self-acceptance, self-



kindness, and a recognition of the shared experience of difficulty and setbacks that teachers experience in their daily lives on the job (Roeser et al., 2013, p. 799).

Conversely, researchers in a different study reported that after an MBSR course, “*no significant improvements were found in teacher belief in a common humanity*” – one of the three aspects of SC – and noted that this correlated with “*no significant improvements on measures of teacher burnout, including emotional exhaustion*” (Frank et al., 2013, p. 212). Taken together, the studies suggest that changes in aspects of self-compassion, or a lack thereof, are strongly related to changes in perceptions of stress.

This relationship between SC and stress has also emerged in previous research on self-compassion, which has shown that SC is negatively correlated with depression, anxiety and self-critical thinking, regardless of meditation practice (Neff, 2003). Research has also suggested that the direction of the relationship is negative: as SC increases, perceptions of stress decrease. According to Raes et al., (2011, p. 250) research into the construct of self-compassion has shown that it is “*associated with psychological well-being and suggests that self-compassion might be an important protective factor, fostering emotional resilience.*” The following section will dissect SC into its respective parts in order to construct a fuller understanding of its mechanisms of action.

## Self-compassion: mechanisms of action

For Neff (2016), the first element of self-compassion, self-kindness, entails an understanding that failure, imperfection and difficulty are inherently part of the experience of being human. People who maintain this understanding tend to be less angry, and therefore, gentler with themselves when confronted with difficulty or when their ideals are not realized in full. Neff believes that resisting or denying the reality of inherent imperfection increases suffering, but when this reality is recognized and accepted sympathetically, emotional suffering is reduced (Neff, 2016). In the same vein, recognizing that all people share the experience of suffering –rather than something that only happens to ‘me’- is the foundation of the second element, common humanity. The aspect of a common humanity may prove to be one of high importance for international school teachers because it seeks to combat the feelings of isolation that naturally accompany living and working in a foreign country. As referenced in previous sections, some research has found that social supports are central to the coping process for many teachers working overseas.

The third and final element of self-compassion is Mindfulness. Under the construct of SC, mindfulness implies that one must take a balanced and non-judgmental approach to negative emotions and feelings without being ‘over-identified’ with them (Neff, 2016). The emphasis on mindfulness is not referring to a meditation practice specifically, but rather to the ability to observe a highly emotional experience without being consumed by it. Put differently, others have said the following:

rather than getting caught up in ruminative, elaborative, thought streams  
*about* one’s experience and its origins, implications, and associations,  
mindfulness involves a direct *experience* of events in the mind and body”  
(Bishop et al., 2004, p. 232, their emphasis; citing Teasdale et al., 1995).

In short, increased objectivity may facilitate a non-self-referential appraisal of psychologically stressful events.

In summary, Self-Compassion is a possible framework for an antecedent, emotion-focused solution to managing stressful situations. Stress is, at its core, a story with a past, present and future. Practising Self-Compassion appears to influence those stories by altering the way that a stressor is cognitively processed, represented and thus responded to (Gross, 2015). Processing information with the intention of kindness

towards oneself puts problems into perspective, alleviates the need for extensive self-criticism, and frames difficulties as part of the wider human experience, creating space to display social emotions that, while felt, may or may not be 'correct'.

## **Limitations of the current research into MBSR, SC and teacher stress**

Fundamentally, the handful of small-scale research on MBSR and SC with regard to teacher stress presented above encompasses the totality of available studies (as of 2016) that meet the exclusion criteria. The body of research on these specific issues is therefore not yet well-developed and findings are currently mixed. Specifically, while it is clear that MBSR courses are having some impact on the perceptions of stress among teachers, research has yet to draw definitive conclusions about the role of MBSR in international education. Furthermore, research is still unclear as to which aspect of MBSR training is doing the work. To that end, a self-compassionate attitude appears to provide a specific mental framework for contending with difficult situations and, therefore, may be the primary driver behind a healthy emotion regulation response to teacher stress.

A second theme in terms of limitations in the current research is that there is great heterogeneity in respect to methodology; courses are sometimes modified and researchers have used a wide range of data collection instruments, thereby also limiting the ability to validate and generalize effects. Moreover, these studies have largely relied on MBSR as an intervention in a specific 'pretest-intervention-posttest' model. This model carries with it self-created unique goals and desirable outcomes. This model of intervention is problematic for a range of reasons, not the least of which is that key components of mindfulness are non-evaluation and non-striving. So, an intervention model that has the goal to reduce stress unavoidably frames stress as problematic and stress relief as 'something to achieve.' Such an attitude is antithetical to the entire concept of mindfulness, as well as the goal of managing stress.

Unsurprisingly, therefore, data trends of the effect sizes in the studies available have been inconsistent. Even when there is an overlap in data collection instruments, interventions rely heavily on the skills and experience of their chosen mindfulness teacher to deliver a programme to their groups. The personality variants of the instructors alone create an impetus to cast a wider net; that is, to investigate experiences of teachers who have taken the MBSR course with a range of instructors, in a range of settings, for a variety of reasons. This would result in more generalizable data trends.

Thirdly, while self-compassion has been shown to mediate teacher stress, the findings in MBSR studies are not consistent; meaning it is not understood how one might cultivate such an attitude. To that end, it is unclear if MBSR might have any lasting effect on measures of SC or on CER. The extent to which these constructs affect stress for teachers who are not interested in a mindfulness meditation course or practice is also unknown. Because living mindfully, or directing compassion inwards, are not exclusive benefits reserved for MBSR participants, a more robust investigation would also consider the prevalence of self-compassion, which includes mindfulness, among teachers who are not part of any specific intervention, as well as those who are no longer attempting to achieve the goals of an MBSR course, the cohort, or a course instructor.

Lastly, the studies available are limited to studies on secondary school teachers from three systems of education: Canada, the USA, and Hong Kong; and no study could be found regarding the effects of mindfulness meditation training on teachers working abroad, in an international school setting. This is concerning because under the wider umbrella of schools, one finds clear differences between public and private, international, foreign and local; each setting with their own respective emotional landscapes to be navigated.

## **Conclusions and directions for research into teacher stress**

There is clear consensus in the research literature that teaching is an emotional endeavour. Thus, the capacity to regulate emotions is fundamental to teaching. Major emotions reported by teachers are anxiety and stress. Stress can be thought of as Simple or Complex, although these domains are related. The issue of contending with simple stress is made complicated by the social norms of a school environment. This is problematic because high amounts of perceived stress will have deleterious effects on teachers, both personally and professionally. Lazarus' transactional model of stress posits stress to be a misalignment between demands and the resources available, both of which may be internal or external, real or imagined (Lazarus, 1966). Across the literature on teacher stress, there is an asymmetrical amount of attention given to the 'stressors' in comparison to the role of the appraisal process. This is true in the case of teacher stress among those who teach internationally, although this area has not been widely studied.

Prevailing theories of teacher stress and emotion regulation suggest that there are generally two main approaches available for coping: direct action techniques or palliative techniques, which are also known as problem-focused or emotion-focused, respectively. These strategies can be either antecedent-focused or response-focused. Research suggests that direct-action, response-focused techniques generally have a stronger effect on mitigating stress, but it is unknown how each approach relates to stress for teachers in an international setting.

Cognitive Emotion Regulation is a response-focused, direct-action technique that refers to what one thinks in response to a negative event. Research has shown that more adaptive thinking strategies -and less non-adaptive ones- have a strong relationship to lower perceptions of stress for a variety of populations. Whether these strategies are useful for teachers' stress has not been studied. Self-compassion, meanwhile, is antecedent-focused and emotion-focused (i.e. palliative).

Mindfulness Based Stress Reduction has been found to be particularly useful for coping with psychological stress, particularly in stress-sensitive populations; such as, mental health conditions like recurring depression and anxiety. Whether these findings apply to international educators who are experiencing teacher stress has not been particularly researched, with the exception of a handful of small scale studies (see:

Frank et al., 2013; Roeser et al., 2013; and Taylor et al., 2015). These studies, although sparse, provide some evidence that self-compassion has statistically significant effects on stress and stress-related symptoms for teachers working in their home countries. Despite the relationship to MBSR, the three elements of self-compassion are qualities that are available to any teacher, regardless of their participation in an MBSR course. Research on both teacher and non-teacher samples has found that increased self-compassion has a strong correlation to reduced perceptions of stress.

The aforementioned approaches to managing stress hold substantial promise for teachers who are working across a variety of international settings because they uniquely target the appraisal process, rather than the stressors themselves. Although each strategy has a unique temporal focus, adaptive thinking strategies should be related to increased self-compassion; however, this relationship has not been studied. Research is needed in order to broaden the scope of literature on the effectiveness of these techniques for managing stress in an international school setting.

### **Chapter III: Design and Methodology**

This chapter unfolds in five substantive sections. The first section introduces the study's aims and the research questions. The second section explores the key epistemological and theoretical themes alongside the philosophical foundations of the research design. The third section then presents the research design with a justification of each method. This is accompanied by a graphic organizer of the design and a timeline of the data gathering process (table 3.1). The fourth section explains the research setting. The final section outlines the data collection instruments and their applications.



## **Research aims**

The aim of this thesis, therefore, is to offer insights into the potential effectiveness of three strategies: 1) self-compassion, 2) mindfulness-based stress reduction training and 3) cognitive emotion regulation on perceptions of stress among teachers who work in a foreign country. More specifically, the study aims to understand the relationship between perceptions of stress and these three strategies.

These data will seek to achieve two goals. First, the will inform policy-making that aims to secure, or enhance, teacher well-being as a means to enrich the quality and experience of teaching in a foreign context. Secondly, the study will add to the literature on the relationship between MBSR and reduction in stress, increases in self-compassion, and an increased use of adaptive cognitive emotion regulation strategies. These goals will serve as means to facilitate more adaptive forms of emotion regulation among teachers who are contending with the challenges of teaching in a foreign country.

## Research questions

The underlying question that this study addresses is: 'How could an expatriated teacher best deal with adversities as a part of teaching?' To answer this question more precisely, the study's question must be addressed in stages. More specifically, the research questions are as follows:

1. To what extent do teachers who work in international school settings experience perceived stress? If so, how do they perceive the impacts of the stress?
2. What is the relationship between 'cognitive emotion regulation', participation in MBSR, Self-Compassion? To what extent do each of these strategies relate to levels of perceived stress among teachers working in a foreign international school setting?
3. What are the implications for school directors and principals working in international schools?
4. Do the outcomes of the research on this sample reflect the outcomes suggested by previous studies?

The above questions posed for this study pertain to the effects of voluntary completion of an eight-week Mindfulness-Based Stress Reduction (MBSR) course on certain psychological outcomes for healthy adults who work in the vocation of teaching in a country other than their own.

## **Theoretical, epistemological and philosophical foundations**

The following section presents the theoretical, epistemological and philosophical foundations that underpin the study design. Since this study leans heavily on Social Constructivism and Object Relations Theory, this section first presents each of these theories, along with their limitations. Then, the section presents the philosophical foundations of the research. Finally, the section presents a case for taking a Pragmatic approach to the research design.

## Theory: Social Constructivism

In one sense, it is easy to define epistemology. According to the Stanford Encyclopaedia of Philosophy online it is: *“the study of knowledge and justified belief”* (Steup, 2014, n.p.). To clarify what constitutes as knowledge, however, turns out to be a more tedious endeavour. This study is aimed at understanding the subjective meaning that teachers place on their experience of stress while working in a unique social context (i.e. international schools). Research that engages with subjectivity and social context is confronted by unique challenges that inevitably shape not only which data is gathered, but also the extent to which it can be accepted as factual and thus generalized to other social contexts. Beck (1979) speaks to this issue:

The purpose of social science is to understand social reality as different people see it and to demonstrate how their views shape the action, which they take within that reality. Since the social sciences cannot penetrate to what lies behind social reality, they must work directly with man’s definitions of reality and with the rules he devises for coping with it. While the social sciences do not reveal ultimate truth, they do help us to make sense of our world. What the social sciences offer is explanation, clarification and demystification of the social forms which man has created around himself. (Beck, 1979; as cited by Cohen, 2000, p. 20).

Beck’s argument suggests that the authority on which data from educational research rests may be limited to its social context; terminology and concepts could be disputed and the search for objectivity can become obscured by its own interpretation. This problem, however, does not nullify data. Indeed, Postmodernism would claim that we have *“access to ... ‘real’ existence only through language”* (Derrida, 1976, p. 158). A branch of Postmodernism that is focused on equating the former with the latter is Constructivism, which is variously called a theory, a philosophy or a cognitive position (Noddings, 2007).

One of the basic premises of all forms of Constructivism is that all knowledge is constructed by, and only accessible through, language. Its essence is articulated by Cooper (2008, p. 210) as:

It is evident that there is no knowledge, only knowledges, no reason, only reasons, in that these various knowledges and reasons are constructed, not discovered.

Cooper's use of 'evident' leaves no room for interpretation; the claim on reality made here, and by Constructivists in general, is that reality is created. The theory of Social Constructivism goes one step further and attempts to explain that this is related to our social settings.

Social Constructivism emphasizes the role of the social context in constructing our realities. This theory claims that learning cannot be separated from the social context (Vygotsky, 1980). It was developed by Vygotsky primarily to advance an understanding (from Piaget) that learning was in response to interpretations of events and objects, not the events or objects themselves (Vygotsky, 1980). Social Constructivism is appealing as a theoretical basis for this study design because it is in line with the literature reviewed above, which suggests that changes in perceptions of stress may come about by changing the systems in which one interprets their meaning.

### **Limitations of Social Constructivism**

The suggestion that reality is socially constructed does not imply an absence of objective facts, but rather emphasizes that the interpretations of those facts happens socially. A socially constructed reality offers little insight into how the interpretations of objects and events are formed, or why some are compelled to emphasize certain objects in the first place. It begs the questions: Why are the objects (people, organizations, etc.) worth interpreting, why do they deserve the energy required to cope (e.g. do they provide meaning, pleasure, etc.?). Thus, one can only have an inferred understanding of the variety of causes there might be, or behavioural responses one might adopt to stress (i.e. the 'rules he devises for coping with it'), (Beck, 1979; cited in Cohen et al., 2000, p.20). These 'rules' are not necessarily accessible to the social constructivist because they are not observable in the traditional sense, although, through scientific analysis, one may be able to identify their impacts, such as changes in anxiety, thought rumination, depression, (e.g. particular biomarkers or psychological measures) trending towards or away from a statistical baseline. Even then, the baseline measures may serve only to capture a normative paranoia of the particular social group being

measured. This theory offers even less about how educators or school leadership might respond to the problem outside of a given context, which is quite a useful question for any contribution regarding the understanding of teacher stress in an international setting.

## Theory: Object Relations

The Constructivist theories permit for the inclusion of a supplemental explanation. Object Relations Theory (herein ORT) is a branch of Freudian psychoanalytic thought that emphasizes the environment and the value of both *“actual (external) objects and fantasized (internal) objects”* (Czander, 1993, p. 44). This theory, developed by Melanie Klein upon the foundation of Freudian psychoanalysis, seeks to explain the ways in which people relate to objects within their world (Klein, 1958). Specifically, how and why personal development requires one to map one’s own internal and emotional landscape (the inner object) onto external figures (the external object) for the purposes of interacting with the object. Klein would argue that, at a fundamental level, the very motivation to engage with the world is affected by a need to placate the internal needs of the egoic self (although, admittedly, the ego is a non-falsifiable construct). A baby, for example, would seek out a parent for comfort, safety and security to alleviate feelings of rejection from that same parent. Similarly, Czander (1993) would argue that a teacher may look to their school leadership with expectations for internal comfort. Eventually, however, the teacher must develop the skills and strategies necessary to feel security when the same object that offers soothing and comfort (e.g. their leaders) also become objects of dissatisfaction, discomfort and disappointment.

Some OR theorists have claimed that *“the content, structure and affective quality of representations of the self, others and relationships may be associated with behaviors in intimate relationships”* (Handelzalts et al., 2014, p.160). In other words, ORT could explain how stress can be experienced in terms that are relative to the individual as well as to the social group, through the context of relationships and the safety of social belonging. For example, teachers might move overseas to pursue *“those gratifications and love they never obtained in the primary family”* and when those cannot be found, or when the relationships become insecure, teachers are likely to see the school as *“a source of frustration and deprivation”* (Czander, 1993, p. 67). Teachers who move to teach in a foreign country are constantly forced to compare the rules of their former (socially constructed) reality with their new one.

For teachers, work is a largely a social endeavour. It would follow that social relationships play a unique role in both the onset and the alleviation of stress. Indeed, the role of social relationships with students, administrators, staff and parents is of such

essential value to adaptive functioning in the context of teaching that it has been documented to affect a teacher's psychological well-being (Keavney and Sinclair, 1978; Schneider et al., 2013). It follows that teaching in an unfamiliar social context exposes teachers to a risk of social isolation that is inherently larger and more consequential. Since OR theory would suggest that self-representations and object representations influence interpersonal relationships (Handelzalts et al., 2014), it follows also that those with lower measures of self-compassion (which measures, in part, feelings of a common humanity) are likely to experience a higher perceived stress in their relationships. This can be experienced as a threat to the sense of self.

These theories accept that work and work-based relationships are a potential source of emotional discomfort. Arguably, issue might be taken with theories that view the pursuit of teacher well-being as solely a psychotherapeutic and philosophical challenge devoted to one's own mind. Taking each theory as absolute truth would appear to make it difficult, if not irrational, to execute the practical affairs of teaching rather than devoting one's life to meditation, psychoanalysis or philosophy. The shared beauty of both theories, however, is that that neither see reality as a fixed condition. Adherents of Social Constructivism understand that reality can be re-constructed. Likewise, when adherents of ORT claim that emotional needs are self-perpetuating and self-motivating; they need to adapt to the given social context, even when the context may provide a range of both positive and negative experiences.



## **Concluding comments**

In summary, the theory(s) that underpinned this study were Social Constructivist Theory and Object Relations Theory. Social Constructivism could explain how teachers might conceptualize difficult emotions, while ORT could explain how they might relate to those feelings and why they might arise in the first place. In the forthcoming section, the philosophical foundations of the study design will be outlined, making the case for a pragmatic approach to answering the research questions.

## Philosophical foundations of the study design

Under the theories articulated above, one is still left with the need to make two assumptions: 1) that teacher stress exists and 2) that it is experienced in relation to a source. These assumptions will be addressed from two philosophical perspectives.

On the one hand, it could be argued that philosophers like Plato would suggest that the concept of 'stress', like 'beauty', is an abstraction that relates to a referent, an ideal Form; and thus any experience of it is inherently incomplete (See: Stables, 2008). On the other hand, philosophers like Wittgenstein and Derrida might argue that stress can only be understood as a concept that exists within an exercise of language and therefore requires no referent (Munz et al., 2010).

Although Plato did not discuss 'stress' as a Form, one might infer that while an educator may experience 'teacher stress', the act of educating exists in the abstract and is only relative to a concept of stress in the abstract. In a Platonic view, when a teacher sees a stressful situation, they see both a situation (which is accessible to the senses) and a manifestation of stress, which lies within a world that cannot be seen but only perceived through an exercise of reason. The Platonic view, therefore, would assume that stress is a word that applies to all stressful things, and that there must be a referent for 'stress' as there is for everything else. Here, language is referring to something that is happening, but has no 'performative' power to make something happen (e.g. Austin, 1962; Stables, 2008).

On the other hand, it has been argued (see: Stables, 2008, Munz et al., 2010) that the postmodern theorists (e.g. Ferdinand de Saussure, Derrida, Wittgenstein) would view conceptions of stress only within the context of the 'language games' in which they are used and that this language is a socially constructed system of signs. The postmodern view should not be mistaken to mean that stress does not exist, or that they deny any objective form of stress, but rather that they would suggest that one should:

reject the possibility of comparing language and the world, given that any conception of the latter is inevitably shaped by our discourses. (Cooper, 2008, p. 210).

This view carries with it a proposition that the conceptualization of 'stress' is used by teachers to pass a sort of value judgment on certain objects, based on characteristics

that are affective and which are seen across all the objects that teachers respond to as stressful. From this view, there is no need to have a referent for 'stress' at all. Furthermore, there is no requirement for people to use the same criteria for stress in relation to objects. Here, stress is undoubtedly a contextual experience. The postmodernist would claim that it is the language surrounding what is stressful that creates the impression of stress; not stress creating the language to describe what is stressful.

The main point of the line of debate above is not to uncover an answer, but rather to illustrate that the concept of teacher stress is clearly not immune to infection from language. This implies that the language about teacher stress may be too socially or politically contaminated to use it as a tool to understand it in any consequential way; meaning, that qualitative data collection needs to be considerate of its context and supplemented by quantitative data collection that has been validated in settings beyond the local context. In short, a study of this nature needs a more practical approach, while also remaining sympathetic to the role of language in creating, and not simply conveying, a teacher's reality.

## **The case for a pragmatic approach**

The purpose of this philosophical background was to address the essential question: Is there an objective and observable reality of the concept of 'teacher stress'? Put differently, this section attempted to understand if stress should be thought of as a cause or a symptom? To some extent, these questions invite criticism for placing too much emphasis on the role of language and the social environment. For example, it could be argued that teachers call something stressful for no better reason than that it is a cultural practice to do so. This critique still does not imply any absolute, rational conception of stress, nor does it conjecture that stress is a topic located exclusively in the field of semiotics. It does even less in terms of proposing a solution. This is where the position of Pragmatism emerges.

Pragmatism is an enormous field; the aim of introducing it here is not to evaluate all of its intuitions and shortcomings (for a more detailed analysis of Pragmatism, see: Mounce, 2000; Putnam, 1995). Instead, it is to illuminate the possibility that a researcher need not choose if stress is independent of- or within- the mind. Peirce (1970), a classical pragmatist, explains it this way:

Consider what effects, that might conceivably have practical bearing, we conceive the object of our conception to have. Then our conception of these effects is the whole of our conception of the object. (As cited in Putnam 1995, p. 291).

An understanding of the effects constitutes an understanding about the object itself; as the effects change, so does the nature of the object. Put simply, the pragmatic view is that truth is what is true right now (Creswell, 2009; Peirce, 1974).

A focus on the effects that might have a 'practical bearing' allows for the application of a range of methodologies. Speaking to this, Creswell (2009, pp. 514-516) writes:

As a philosophical underpinning for mixed methods studies, Tashakkori and Teddlie (1998), Morgan (2007), and Patton (1990) convey its [Pragmatism's] importance for focusing attention on the research problem in social science research and then using pluralistic approaches to derive knowledge about the problem.

In respect to this study, both qualitative and quantitative approaches are appropriate. The quantitative approach offers a chance to capture larger amounts data from a distant population using tools that have been validated many times over. The qualitative approach offers an opportunity to deepen the understanding of the issue of teacher stress and coping; in this case, through one-to-one interviews. Taken together, this approach also offers an opportunity to triangulate data. There will be a deeper discussion of this in the forthcoming section.

In summary, when thinking about this problem, this researcher finds the perspectives of the Postmodernist most persuasive. This position does not argue against an objective reality; instead, it argues that reality unavoidably elicits a judgmental interpretation and subsequent appraisal. This analysis does not contradict the pragmatic position. A pragmatic and mixed-methods approach is the most adequate approach to investigate this problem. This approach will look through a postmodern lens and be particularly considerate of the social context in which the data is collected. It should be noted that while postmodernism is a helpful approach to thinking about the problem; it is not the only way.

## **Research strategy**

The following section presents the research design. It is divided into three main parts. In the first, building on the philosophical assumptions articulated above, table 3.1 outlines the range of research strategies and philosophical foundations used to approach the research questions, along with a timeline of the data gathering process. In the second part, the opportunities and challenges offered by both qualitative and quantitative designs are explored, making the case for a mixed methods study. In the third part, the section explains and justifies the staged approach to the overall study, including the specific qualitative and quantitative data collection methods applied at each stage.

## Research design matrix

<i>Table 3.1: Research questions, data collection procedures and times, and data analysis procedures.</i>		
<b>Research Questions</b>	<b>Data Collection Procedures and Timeline</b>	<b>Data Analysis</b>
<b>Expatriated teachers' experiences of stress</b> 1. To what extent do teachers who work in international school settings experience perceived stress? If so, how do they perceive the impacts of the stress?	<b>Literature review</b> of emotions in teaching, stress, teacher stress (Spring and summer, 2015).	<b>Investigate</b> literature from different lenses (e.g. 'teacher-as-caretaker' 'instructor' 'individual'). <b>Develop</b> and apply theoretical lenses.
	<b>Online Questionnaire</b> distributed to international school teachers via direct e-mail (Winter 2015-2016)	<b>Identify</b> item responses and apply <b>Cross Tabulation</b> to evaluate trends and outliers. <b>Evaluate</b> findings against those of studies referenced in literature review. <b>Evaluate</b> congruencies and discrepancies.
	<b>Semi Structured Interviews</b> with teachers and counsellors at the 2016 SENIA conference (as part of a pilot study) (Spring 2016) <b>Continuing review of literature</b>	<b>Develop</b> a model of teacher stress and coping strategies linking to self-assessment of outcomes. <b>Evaluate</b> model against previous literature and other theoretical lenses. <b>Evaluate</b> data for strengths and limitations of the methods used.
	<b>Literature review</b> of 1) emotion regulation 2) mindfulness-based interventions 3) mindfulness based interventions for stress and teacher stress. (Summer, Fall, 2015)	<b>Investigate</b> literature from applications of mindfulness other than teaching, compare for consistency. <b>Evaluate</b> literature claims for strengths and limitations, and potential application to teaching.
	<b>Meditation Workshop for Teachers</b> at Plum Village Buddhist Monastery, Hong Kong (Summers 2015, 2016)	<b>Develop background</b> regarding potential mechanisms of action that have potential for application to international teaching.
	<b>(Unstructured) phone interview</b> with Robert Roeser, Ph.D., lead author of two major studies on mindfulness and teacher stress. (Fall, 2015)	<b>Develop</b> an understanding of the strengths and limitations of methods used in studies with a similar focus. <b>Refine</b> study design and research questions.
<b>Impact of mindfulness on teacher stress in international schools</b> 2. What is the relationship between 'cognitive emotion regulation', participation in MBSR, Self-Compassion? To what extent do each of these strategies relate to levels of perceived stress among teachers working in a foreign international school setting?	<b>Critical reflection and literature review</b> continued (Winter-Summer 2016)	<b>Develop</b> a basis for the research setting. <b>Develop</b> a logic model for applying aspects of mindfulness to mediate teacher stress in international schools.
	<b>Semi Structured Interviews</b> with teachers and counsellors at the 2016 SENIA conference (as part of a pilot study) (Spring 2016) <b>Data</b> from impact and perceptions of stress and the feasibility study. (Summer 2016)	<b>Refine and Develop</b> research questions and hypotheses <b>Refine and Develop</b> a methodological approach that reflects the needs of the respondents, the international context, and the need for larger amounts of data.

	<b>Psychometric Questionnaires</b> distributed online to international schoolteachers according to stated design. (Late 2016)	<b>Identify</b> item responses and apply <b>Cross Tabulation</b> to evaluate trends and flag outliers
<b>Professional implications for teachers and leadership</b> 3. What are the implications for schoolteachers, directors and principals working in international schools? For policy makers and curriculum development?	<b>Critical reflection and literature review</b> (Fall Winter 2016)	<b>Data</b> collection from stage three is presented and analysed for application to international schoolteachers and contexts. <b>Develop Implications</b> for school leaders. <b>Develop</b> policy framework for teacher stress that is consistent with IBO.
<b>Theoretical implications</b> 4. Do the outcomes of the research reflect the outcomes suggested by previous studies?		<b>Evaluate and identify</b> the methodology and study design. <b>Identify the practical application</b> of the data that according to the methodology.



## **Study design – the methodological approach**

For Newman & Benz (1998), *“Qualitative and quantitative approaches should not be viewed as polar opposites or dichotomies”* but instead, these approaches rest along a continuum (as cited by Creswell, 2008, pp. 371-373). Mixed methods research is data collection that relies on a combination of qualitative and quantitative tools. For Creswell, (2009, pp. 388–389) such an approach would be useful when one aims is to understand the meaning teachers assign to stress whilst also wanting to examine relationships between variables. More specifically, a mixed-methods approach could attempt to achieve the following: 1) constructing a view of teacher stress as a social problem occurring in a specified international context and 2) understanding the relationship between CER, MBSR, and Self-Compassion (independent variables) and perceptions of stress (dependent variables). Next, the strengths and limitations of each methodology as they apply to this particular study will be presented in more detail.

## **Qualitative data collection**

Social Constructivist theory would posit that a teacher's experience and understanding of stress is a learned by-product of their social environment and that, therefore, international schoolteachers would probably conceptualize stress differently in their new settings. With regard to this study, a qualitative methodology is useful for understanding the nuanced ways teacher's meanings' shift as they come to experience and ultimately contend with stress in their foreign contexts. In particular, face-to-face interviews would be especially useful for developing a deeper understanding of the meaning that they have assigned to an issue; in this case, teachers' conceptualisations of stress. Interviews allow for – if not seek out – the influence of the international social settings on individual teachers.

This is useful because the theories presented above do not permit an assumption that teacher stress is a phenomenon that occurs uniformly in conjunction with the vocation of teaching. By way of example, a teacher who takes the position that their stress is in direct proportion to 'events and objects' external to them may find refuge abroad (e.g. better remuneration packages). Likewise, it may also be the case that the challenges of unfamiliarity with a foreign country are meagre in comparison to the ways in which a teacher abroad appraises the experience as one of novelty and adventure. As a method, some researchers have suggested that face-to-face interviews in the subject's setting (e.g. the school) would help a researcher better understand individual experiences and how those experiences are normalized and appraised (Bryman, 1984).

## **Limitations**

Interviews inject the researcher directly into the lives of their respondents. This is a major limitation because it injects the researcher's biases into the interpretation and subsequent construction of the narrative. Further, there is a potential for misrepresenting the respondent's meaning, which may also limit the usefulness of the data beyond the context from which it was collected. For some, this is a limitation that is unavoidable in all research.

In the case of this study, the researcher has over a decade of experience as a teacher and thereby holds presuppositions about the topic that will affect the data collection and analysis process. Moreover, the researcher has personal experience with mindfulness meditation that resulted in helpful outcomes. These two factors lend

obvious bias to the analysis of data collected through interviews. Such a bias may serve only to facilitate a form of cultural reproduction; knowledge that merely advances the socio-cultural values of a specific social group. This brings to the fore a second major limitation: relying solely on interviews limits the capacity to capture generalizable data about stress and even less about the ways in which it is possibly mediated.

To accommodate these limitations, three steps will be taken. First, data will be collected from settings and respondents with whom the researcher has no previous or expected future relationship. Second, the researcher will follow a prescribed teacher interview protocol that is adapted from a previous similar study on mindfulness in education. This will be explained more fully in the forthcoming section, namely “Stage two.” Third, the study will gather the lion’s share of data using a quantitative approach, in an effort to obtain data that can be compared to, and contribute to, data from larger bodies of research. That approach will be explained next.

## **Quantitative data collection**

In the hundreds of papers reviewed for this study, the majority of the data collection came from quantitative methodologies. They have numerous advantages. The range of self-report questionnaires have proved themselves useful for gathering 'hard data' that is reproducible, generalizable, and offer some protection against biases; key features of this form of inquiry (Creswell, 2009). Psychometric questionnaires of this sort are particularly useful for researchers operating with limited resources, as is the case with this study. Moreover, they offer an economically viable alternative to interviews. Distributing questionnaires electronically allows countless people to participate in the study simultaneously. This is advantageous to a researcher attempting to gather data from a wide range of countries because the respondents and the researcher have the freedom to participate in the research independent of geographic location and in their own time. This approach, therefore, takes account of the finding that teachers often associate stress with feelings of urgency and limited time (Kyriacou, 2001).

## **Limitations**

There are inherent flaws associated with the use of self-reporting in questionnaires, and indeed it has long been argued that experimental tests offer a good alternative way of exploring the domain of temperament (Thurstone, 1948). This is not to say that questionnaires are a useless form of data collection, but that results must be supported by observations. Even well worded questionnaires suffer from issues of misinterpretation. As Smith (2008, p. 384) writes:

The public meaning of words and conventions of syntax and expression often warrant people finding meaning in our words that we did not consciously invest them with.

Using more than one questionnaire as a data point, and relying on instruments that have been peer-reviewed for reliability and validity, offers a somewhat viable solution to this problem. More practically, despite the flaws of self-reporting, the results can be taken as a part of a growing body of research, rather than conclusive in and of themselves.

## **Study Design – Research Setting and Data Collection Stages**

The following section presents the research setting. It identifies the study sample and makes clear the conditions of inclusion in respect to the geographic locations of the school settings. Following that, the section explains how respondents were recruited for each of the three stages of the study. It concludes by addressing the risks of the study, how they were controlled for, and the ethical issues that were taken into consideration.

## **Research Setting**

### **Study sample**

The study was limited to full-time teachers employed in a school that is not in their home country. The study was conducted during the active months of the school year, rather than during school holidays, as exposure to teacher stress and stressors are essential if the most accurate data is to be captured. Beyond these exclusion criteria, the survey was open to anyone regardless of ethnicity, cultural background, age, gender, sexuality, nationality, or any other demographic difference. While these all factors could potentially affect perceptions of stress, the aim of this study was to capture data that is generally representative and thus generalizable to the wider international teaching population; a goal which cannot be achieved with data that is demographic-specific.

### **Geographic location**

While the geographical location of the teacher or their school was not evaluated as a variable contributing to teacher stress, it was required that they were actively working in an international school setting that is in a country foreign to their home country. Due to the emerging nature of life after globalization, participants who held passports from multiple countries had the autonomy to decide whether the country in which they were working was international.

The degree to which a school is considered to be international with regards to the purpose of this research matters only to the extent that it affects teacher stress in a foreign setting. Put simply, this research is focused on teachers' experiences as they relate to a school that is not in their home country. To assess whether respondents are working in an international school, they were asked:

In which setting do you currently work?

A) International school in a foreign country

B) International school in my home country

This intentionally allows for flexibility of interpretation; however, note that results from respondents who selected option B were eliminated from the data set.

All stages of the study were open to any teacher that met the exclusion criteria above.

### **Risks**

At all stages of the study, a key risk was that targeting people who are looking for stress reduction has a risk that the portion of the sample that is comprised of MBSR participants is prone to maladaptive levels of psychological distress and reflecting on this stress may elicit additional difficult emotions. To control for this risk, respondents were able to opt-out of various data collection instruments at any time. Incomplete responses were identified in the data sets as non-responses. This study also limited risks by taking a retrospective look at teachers who have completed MBSR courses in their own time, with their own funding, on their own terms, in accordance with their own values, and weighted against promised benefits, which likely varied in each MBSR course.

## **Data collection stages and processes**

This study unfolded in three substantive stages. Each stage took consideration of ethics according to the same standards. The following section outlines the selected strategies of inquiry as they were applied at each stage of the study. Each instrument will be explained in terms of its application and recruitment of participants, the rationale for its use (i.e. why it was chosen) reliability and validity. Then, a rationale for the ordering of instruments is presented. Finally, the section concludes with comments that address the data points that are omitted from this study.



## **Stage one**

The first stage sought to understand the extent to which teachers in an international school in a foreign country believed they were experiencing stress and the extent to which that stress affected them. It was useful to explore this question because there was little data available on the subjective experience of teacher stress in the international school system. To that end, the first stage of the study sought to understand the extent to which perceptions of stress were affecting teachers in an international school abroad.

### **Sample recruitment and response rate**

Stage one used a Likert-scale self-report questionnaire that was adapted from a large-scale study on stress (see below). To recruit teachers for the first stage of the survey, 20 international schools (registered as IBO world schools) across Asia, South East Asia and Eastern Europe were chosen at random using the IBO website's "find a school" webpage. All of the schools contacted used English as the primary language of instruction, but the selection of schools and teachers was otherwise random. A private web link to the online survey was then sent to the schools' listed 'general enquiries' e-mail addresses. The e-mail stated:

Enclosed is a link to a survey which aims to better understand how teaching overseas affects your school's teachers. The survey is part of a larger academic research project on teacher stress in the international school contexts. Please distribute this survey to your teachers and invite them to participate in the study.

Teachers from every school that was contacted participated to some extent. Of the 20 schools contacted, response rates varied. One school in Hong Kong accounted for 23 (22%) of total responses. Two schools based in Beijing, China, returned sixteen and ten responses respectively, and 18 (90%) of the schools returned responses from at least three teachers. A total of 95% of the 103 teachers (98 total) opened the link and completed the survey (although some of these did not complete every question). There were not sufficient responses to compare data from various geographic locations. Alas, the survey tool failed to indicate how many individual teachers received the e-mail with the survey link.

Following the 2011 'Ethical Guidelines for Educational Research' set forth by the British Educational Research Association (BERA, 2011, p.6) "*securing of participants*

*voluntary informed consent, before the research gets underway, is considered the norm for the conduct of research.*" As such, the survey began with voluntary informed consent (available in Appendix E). This explained that the survey was for the purposes of educational research, how the data would be used, and to whom it would be reported. Due to the sensitive nature of the survey, participants had the opportunity to withdraw or opt-out without consequence after reading the informed consent. To secure anonymity, the researcher and participants used an online survey, namely 'Qualtrics' and no personally identifiable data was collected. This online survey tool ensured that all relevant data was recorded into a single database for subsequent analysis. One limitation of the tool was that it did not have the ability to track the number of respondents that received the survey link, meaning that it was impossible to calculate a response rate during data analysis. This issue, and a possible solution, is spelled out in the limitations section.

### **Data collection instrument**

Data collection for Stage One relied, in part, on an adapted version of a survey used in a study measuring the impact that perceptions of stress had on the health of 28,753 US adults (See: Keller et al., 2012). The survey questions were modified to be specific to teachers, rather than the general population; examples are provided below.

To determine the amount of stress that teachers in international schools perceived during their school year, teachers were asked: *"How much stress did you experience in the past school year?"* In this stage, the subjectivity of the self-reporting was a useful feature because the question was measuring a subjective experience. To that end, responses used a three-point Likert format, which were as follows: *"A lot of stress, a moderate amount of stress, relatively little stress"*.

To determine the perceived impact of stress, along with the ways in which that amount of stress might influence teaching, teachers were asked three questions. First, participants were asked: *"During the past school year how much effect has your stress had on your ability to execute the duties of teaching? A lot, Some or Hardly any, or none."* Since it is not guaranteed that a high amount of stress would be uniformly problematic or that a low amount of stress would be beneficial, respondents that selected either 'a lot' or 'some' they were then asked a follow up question: *"How has this amount of stress impacted your ability to execute the duties of teaching?- Positively, Negatively, or Unsure."*

Both of these variables used a three-point Likert format for responses. A cross analysis of this combination of questioning offered a respondent the opportunity to describe their stress and evaluate its perceived impact.

The subsequent and final line of questioning was aimed at capturing a snapshot of the prevalence of uncertainty about the future in relation to perceptions of stress. Although uncertainty does not automatically equate to anxiety, it has been explained that anxiety is often characterized by *'feelings of uncertainty when thinking about the future'*. To understand how perceptions of stress might be correlating with anxiety, teachers were asked the following: *"How do you feel when you think about your future as a teacher? – Hopeful, A relatively little amount of uncertainty, A moderate amount of uncertainty, or A lot of uncertainty."* This variable allowed for one response only.

To learn whether or not teachers had attempted to reduce their amount of stress, they were asked: *"During the past school year, have you taken any steps to control or reduce stress?"* Responses to this question were presented in a dichotomous format (i.e. yes/no). In the event that a respondent selected 'Yes', they were able to continue the survey; if they selected 'No', they were directed to the end of the survey and asked: *"If there is anything else that you would like to mention, please comment below"* and a blank space was provided. Since this part of the study was exploratory only, this space allowed teachers to elaborate or share thoughts on teacher stress, stress management, or otherwise.

## **Stage two**

Stage two was a small-scale feasibility study intended to inform stage three of the study. Research on pilot studies has found that they are an effective method to assess the issue being investigated, as well as to assess whether or not the proposed methods are realistic and workable for the full-scale study (Van Teijlingen et al., 2001). From a practical point of view, the pilot study was useful to attempt to uncover possible problems with the research questions and research plan. To that end, it helped to identify any practical or logistical problems that might arise during the proposed wider data collection process. It also informed the expected sample size of the main investigation, the resources needed, as well as providing an indication of the variability of outcomes (Van Teijlingen et al., 2001).

In the second stage, therefore, a scripted qualitative interview was applied and the viability of the other three psychometric instruments intended for Stage Three was also assessed.

### **Sample Recruitment**

To recruit teachers for the feasibility study (i.e. Stage two), the researcher attended an international school conference that caters to expatriated schoolteachers. This three-day professional development conference is known as Special Education Needs In Asia, or SENIA, and was opened to teachers that work at international schools across Asia, China, South East Asia and deliver the IBO curriculum, primarily in the field of special needs education. Research on this field has shown that it is particularly vulnerable to teacher stress (see, for example: Fimian, 1984). To recruit these respondents for this part of the study, an advertisement was displayed on conference walls that asked: *"How does teaching abroad affect you?"* A total of 37 teachers registered to participate in the study whilst attending the conference. Each survey took approximately one full hour to complete. There was sufficient time for 43% of all respondents, or fifteen, to engage in interviews over the three-day event face-to-face, while one was interviewed via Skype after the conference. Arguably, the physical location of the event lent bias towards data from teachers in Asia, however, many teachers working in these schools offered a self-reported history of living and working in a range of countries around the world.

Volunteers were required to complete an informed consent form prior to participating in the interviews. As with Stage One, this explained that the interview was for the

purposes of educational research, how the data would be used, and to whom it would be reported. Again, participants had the opportunity to withdraw or opt-out without consequence after reading the informed consent, or at any point in the subsequent interview process. All research was conducted face-to-face in a semi-private area, with the participants retaining anonymity (i.e. identifying information was not collected in any form). The data was recorded by hand and transcribed into Qualtrics for analysis after the interviews were completed.

Although sixteen respondents were interviewed in stage two, there were issues with the data collection. Primarily, it was concluded that the interview-based teacher interview protocol (TIP) was too time consuming for both respondents and researcher and also that the other piloted data collection instruments needed to be applied in shortened forms. For this reason alone, the remaining volunteers (i.e. those who were not interviewed due to a lack of time) were not contacted. The pilot survey in Stage Two therefore fundamentally affected the choice of design for Stage Three. This is explained in detail in chapter four.

### **Data collection instruments**

#### **Recalling a stressful school event**

To better understand the international schoolteacher's experience of stress and coping, stage two applied the teacher interview protocol (Herein "TIP"). Three other methodological tools (PSS, CERQ-S, and SCS-SF) were also given along with the TIP. Since, unlike the TIP, which was dropped at Stage Three, these tools were applied in Stage Three, they will be explained more fully in the following section on Stage Three.

The TIP was adapted, with permission, from a study on mindfulness and teacher stress conducted in 2015 by Robert Roeser, Ph.D., of Portland State University's Department of Psychology. (As an aside, at the time of this study, the study being referenced had not yet been peer-reviewed or published. This protocol is presented in its full original form in Appendix A, however.) Notably, in the study referenced, the questions were repeated one year apart and after a mindfulness intervention was applied to a cohort of teachers working in government funded schools in their home countries. Further, in the study referenced, the questionnaire also collected data regarding the role of social supports in managing stress. For the purposes of this study, the questionnaire was adapted to omit questions regarding social supports.

The teacher interview protocol (TIP) begins with the following statement:

Now I'd like to ask you some questions about your role as a teacher. We are interested in what you think and feel is good and what you find challenging about teaching (Roeser, 2013.).

Respondents were interviewed about a teaching-related event that was particularly stressful for them. The interview opens with generalized open-ended questions about a teacher's *"favorite aspects of teaching"* and asks for examples. Questions then moved into exploring presumed emotionally neutral territory; specifically, asking a teacher to discuss the ways in which they know that they *"are doing a good job"* at teaching. Finally, the questioning took aim at the "most stressful aspects" of teaching and asked the respondent to *"describe a specific incident or recent event that occurred that stressed you out"* through a series of ten follow-up questions.

### **Limitations of interviews**

As mentioned in the literature review, previous research on this topic has largely favoured quantitative measurements, which have allowed for the reasonable preference of larger sample sizes; this has often come at the expense of data from deeper qualitative interviews. This limitation is in part because of the rapid rise in interest in MBSR, and since, given the range of outcomes that one may experience during a MBSR course, it would have been difficult for a researcher (at that point) to capture meaningful data on the topic from the experience of a handful of participants. Further, because the respondents' perceptions of stress must be filtered through the researcher's theoretical lenses, the data had potential for distortion on two levels.

Further, there are inherent limits to both language and memory. Indeed, research has shown that memories and, in particular, emotionally charged autobiographical memories, can change over time (for an explanation of this phenomenon, see: Schwarz and Sudman, 1994). For the purposes of a retrospective analysis of stress, however, this researcher makes the assumption that even a biased memory of a stressful event is no less valid than the objective view, such as a mismatch between resources and demands, because the perception of a stressful event has an equal capacity to fuel an emotional response. Put differently, the psychological effects of teacher stress, like feelings of isolation, exist regardless of the objective reality of a stressor. The deeper experience of

teacher stress, regardless of its degree of subjectivity, requires coping and is therefore worth exploring, at least in the general sense, alongside more quantitative measures.

## **Stage three**

The aim of stage three was to determine if a relationship of probable causation between cognitive emotion regulation, self-compassion, MBSR and perceptions of stress exists among the identified groups of teachers.

The third and final stage of the study design collected the data that was used in the final analysis. In general terms, this part of the study sought to answer the research questions put forth. More specifically, it aimed to gather data using psychometric tools that more reliably reflect perceptions of stress, self-compassion and cognitive emotion regulation strategies as mediators to stress, and the extent to which participation in MBSR seems to influence those constructs. This stage of the study was designed after some key findings regarding the feasibility of the study emerged from stages one and two.

### **Sampling strategy and participant recruitment**

Three strategies were used to recruit respondents for the third stage of the study, three strategies were used. First, a web link used was sent to an e-mail list-serve named: Mindfulness in Education Network (MiEN). This organisation reports 678 active members on its mailing list. Since not all members are actively teaching in the international setting, respondents who indicated that they did not work in an international school in a foreign context were taken to the end of the survey immediately. Second, the web link was directly e-mailed to teachers at international schools around Asia using e-mail addresses given to the researcher during the registration at the SENIA conference discussed above in Stage Two. Respondents were asked to share the link with their teacher colleagues. Regrettably, the survey tool sent out failed to report how many teachers received this link; however, estimates indicate a response and completion rate of less than 10% overall. Specifically, results show that 86% of the 73 respondents that started the survey, completed it; 12 males and 51 females (63 total). Moreover, 17 indicated that they had voluntarily completed the MBSR course. All the teachers were currently working in an international school in a country not of their birth.

Thirdly, the researcher obtained permission from four head teachers of international schools in Hong Kong to drop off a total of 80 surveys – twenty to each school – in paper form. These surveys were collected and manually input into the electronic version for



later analysis. Targeting schools this way increased the likelihood that the survey would assess only the teachers intended, since all respondents from Stage Two were working in schools situated in a foreign country and catering to an international community. Of the 80 that were dropped off, a total of 63 were completed and returned. Informed consent and withdrawal arrangements were as in Stage One, and once again complete anonymity was maintained.

## **Data collection instruments**

### **PSS-4**

The Perceived Stress Scale (PSS) (Appendix B) is one of the most widely used questionnaires for measuring one's perceptions of stress (Cohen et al., 1983). A short four-item scale (PSS-4), which is comprised of two positive and two negative statements, can be substituted for the full instrument. Research on the short scale has noted that:

Although the four-item PSS (PSS-4) has a moderate loss in internal reliability in comparison to the 14-item scale ( $r = 0.60$  vs  $r = 0.85$ ; Cohen and Williamson, 1988), the brevity of this instrument lends itself well to settings in which assessment time is limited. (Warttig et al., 2013, p. 1618).

Because this study aimed to investigate the matter of perceived stress as reliably as possible without imposing a large time commitment on participating teachers, the four-item scale was used.

The PSS-4 consists of statements and responses that are modelled on the following five-point Likert-scale format: 0=never, 1=almost never, 2=sometimes, 3=fairly often, 4=very often. Half of the statements are worded positively (i.e. In the last month, how often have you felt things were going your way?) while the other half are stated negatively (i.e. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?). The totalled scores reflect the degree to which a respondent believes that the demands placed on them exceed their ability to cope. Although there are normative values (presented in table 3.2 below), there are no cut-off scores; a higher total score indicates higher perceived stress. Higher scores have been associated with a range of psychological and physical health problems, such as, colds, addiction, social anxiety and depressive symptoms (Cohen et al., 1983).

### **Limitations of the PSS-4**

The perceptual differences in respect to stressors will ultimately play a key role in both the types of coping strategies and the ways in which one deploys them. There is no assumption that uniform exposure has uniform outcomes. The PSS-4 views this somewhat differently; specifically, it aims to measure the interaction of simple and complex stress. For example, Cohen et al., (1983, p. 386) writes:

Perceived stress can be viewed as an outcome variable-measuring the experienced level of stress as a function of objective stressful events, coping processes, personality factors etc.

In general, this measurement suggests that simple stress (i.e. objective stressful events) are necessary for the experience of complex stress, despite the array of individual factors (coping processes, personality factors, life events etc.) that ultimately determines the extent to which stress will accumulate. However, the PSS-4 does not delineate between the simple or the complex, but rather views stress as a uniform experience. In other words, stress from a mismatch of resources and demands is viewed through the same lens as stress from cumulative life events. While this is not a view that is epistemologically congruent with the views underpinning this study, it does not stand in opposition to them.

This study accepts that external stressors are not, in and of themselves, objectively definable or the sole causes of stress or emotional discomfort. This view is supported by both Social Constructivist Theory and Object Relations Theory and has been documented in educational research (for a clear example, see Dale and James, 2015). This view, along with the research on emotion regulation, makes the case that measurement of teachers' perceptions of stress should be done alongside exposure to school-related stressors in order to best understand the role of coping processes, attitudes towards stress and stressors have on the experience of teacher stress.

### **Reliability and validity of the PSS-4**

When testing for reliability, applying the same test again after a very short period of time (e.g. two days), unsurprisingly, leads to substantial correlations, whereas retesting later leads to less clear correlations (Cohen et al., 1983, p. 393). After extensive testing and retesting, the reliability of the PSS-4 has been shown to be adequate (Cohen et al., 1983).

In testing for validity, PSS researchers have controlled for variables like gender, age and level of education. In the original studies of the construct of perceived stress (i.e. Cohen et al., 1983), females reported statistically significant more stress than men. Likewise, in more recent research, scores on the PSS-4 were impacted by sociodemographic factors, including gender (Warttig et al., 2013). For example, “*greater levels of perceived health status, greater levels of social support, being male and being older were predictive of lower PSS-4 scores*” (Warttig et al., 2013, p. 1617). While it was not the intention of this research to establish how teachers’ sociodemographic differences impacted their levels of perceived stress, it was interesting to investigate how variables of gender were related to PSS-4 scores in the data collection and analysis because the vocation of teaching is largely female.

#### **Normative values for interpreting PSS-4 scores:**

<i>Table 3.2: Mean, Standard Deviation for the PSS-4. Cronbach’s alpha reliability of PSS-4 with PSS = 0.77</i>		
Item	Mean	S.D.
<b>PSS-4 Norms</b>	<b>6.11</b>	<b>3.14</b>
Male	5.56	3.04
Female	6.38	3.15
Cohen’s original 1983 sample.	Male, 4.2 Female, 4.7	Male, 2.8 Female 3.1
<i>PSS-4: Four item Perceived Stress Scale. S.D.= Standard Deviation. Data is based on a sample of UK based English respondents and values are taken from “Table 2” in Warttig et al., 2013, p. 1621.</i>		

The PSS-4 is a reliable and valid measurement of perceived stress and can be completed by any teacher. For the purposes of comparison, this study will utilize the scores which are considered in the most recent research as being “normative”, as presented above in table 3.2. It is worth noting that the sample in this study was not UK based; therefore, these normative scores are probably to be better thought of as the best available data point for comparison rather than the only point.

#### **Self-Compassion Scale-Short Form (SCS-SF)**

The Self Compassion Scale (SCS) has 26 items and the Self Compassion Scale Short Form (SCS-SF) version has 12 items, measuring three distinct elements of self-compassion (See: Appendix item C): self-kindness vs. self-judgment, common humanity vs. isolation, and mindfulness vs. over-identification. To measure these specifically, it is advisable to use the long form. For the purposes of this study, which aims to take a snapshot of general Self Compassion, rather than each of its three individual attributes,

the short form will be used, however. The short form is also less time consuming for the respondent to complete than the long form; an additional advantage for this study. Neff (2015, p. 269) cites a range of research that shows:

Higher scores on the SCS have been associated with greater levels of happiness, optimism, life satisfaction, body appreciation, perceived competence, and motivation (Hollis-Walker and Colosimo 2011; Neff et al. 2005, 2007a, b, 2008); lower levels of depression, anxiety, stress, rumination, self-criticism, perfectionism, body shame, and fear of failure (Breines et al. 2014a, b; Finlay-Jones et al. 2015; Neff 2003a; Neff et al. 2005; Raes 2010), and healthier physiological responses to stress (Breines et al. 2014a, b; Friis et al. 2015).

### **Reliability and validity**

The Short Form of the SCS (SCS-SF) has “*a near-perfect correlation with the full SCS ( $r \geq 0.97$ )*” (Raes et al., 2011, p. 254). Raes et al. also report, however, that the short version demonstrated less internal consistency in respect to all the subscales (Cronbach’s  $\alpha \geq 0.86$ ) and therefore is limited to measuring overall self-compassion scores.

The construct of self-compassion is relatively new to the field of psychological research and therefore it has naturally been called into question. At least one major study (n=1609) investigated the construct and reported marginal inconsistencies regarding validity (See: Hayes et al., 2016). Despite the critical approach, this study nonetheless concluded, “*the SCS-SF has demonstrated good validity and reliability in non-clinical samples*” (Hayes et al., 2016, p.1). Further to the sources already cited, evidence has been offered to support self-compassion as theoretically sound and that the SCS is a valid measure of self-compassion (Neff, 2015). Put simply, the short form version has proven to be a reliable and valid instrument that can serve as an economical alternative to the long form (Neff, 2003; Neff, 2015). Notably, the construction and factorial validation of the form was completed in Europe (Belgium) and the USA, in both Dutch and English. The validation in a multi-national setting is useful to a study that looks beyond effects within a single nationality.

## Scoring

Although the theoretical model of self-compassion differentiates the attributes of self-compassionate behaviour, it does not presume that one factor is more influential than another. Rather, the model suggests that the following:

the synergistic interaction between these various ways of relating to oneself creates a self-compassionate state of mind that is more than the sum of its (subscale) parts (Neff, 2015, p. 267).

For the purposes of scoring, and for the purposes of this study, a composite scale score for the SCS-SF is an appropriate use of data. Normative values are presented in table 3.3 below. A single scale score achieves two objectives. First, it simplifies analyses. Second, given that this research is motivated by an interest in the potential for intervention, and the fact that the subscales operate synergistically, a single global score of self-compassion is a useful representation of the relationship between self-compassion and teacher stress.

### Normative values for interpreting SCS-SF scores:

Table 3.3 Cronbach's alpha, mean, and standard deviation for the SCS-SF total scores.			
	Cronbach's alpha reliability with the long form SCS	Mean	S.D.
<b>Total SCS-SF score</b>	<b>0.86</b>	<b>36.00</b>	<b>7.33</b>
<i>SCS = Self-Compassion Scale; SCS-SF = Self-Compassion Scale-Short Form; SD =Standard Deviation. Scores taken from Raes et al., 2011, p. 253.</i>			

In line with the findings that men have lower perceived stress, at least one piece of research on the self-compassion scale has also found that “*male clients tended to report more self-compassion than female clients*” (Hayes et al., 2016, p. 3). It is not, however, the intention of this research to establish how teachers' gender differences, or the multi-national setting, or other extraneous factors impact their levels of self-compassion.

### Cognitive Emotion Regulation Questionnaire

To measure the prevalence of a particular cognitive emotion regulation strategy (herein, CER) amongst international schoolteachers, the study will administer the Cognitive Emotion Regulation Questionnaire Short version (CERQ-S) (see Appendix D). The CERQ and the CERQ-S are ideal for identifying someone's general cognitive coping strategies (i.e. what is thought) in the context of coping with psychological stress.

The CERQ-S opens with the following question and statement:

How do you cope with events? Everyone gets confronted with negative or unpleasant events now and then and everyone responds to them in his or her own way. In the following questions you are asked to indicate what you generally think when you experience negative or unpleasant events. (Garnefski and Kraaij, 2006, my emphasis).

These directions are followed by a series of 18-36 statements. Specifically, the standard version of CERQ has 36 items and the CERQ-Short version has 18 items that function as self-report questionnaires aimed at identifying cognitive coping strategies deployed to process a negative event or situation (Garnefski et al., 2002). The 18-item version has two statements that measure the nine cognitive strategies outlined in the literature review.

As a construct, CER, like self-compassion, is also somewhat new; the CERQ was introduced as a psychometric tool in 1999 and the short form in 2002 (Garnefski et al., 2002; Garnefski and Kraaij, 2006). It was a useful tool for this study because it specifically focused on data that speaks to a private form of coping. It also provided a distinction from emotional strategies (i.e. what is felt). In other words, the CERQ-S explicitly differentiated between the thinking strategies a teacher would use in response to a stressful event and their feelings about the event itself. It is interesting to note that some of the CERQ's statements conceptually overlap those on the SCS-SF; for example:

- CERQ-S Item 17: *"I continually think how horrible the situation has been."*
- SCS-SF Item 9: *"When I'm feeling down I tend to obsess and fixate on everything that's wrong."*

A key difference is that the CERQ-S focuses on what is thought while the SCS focuses more on what is felt. To that end, the CERQ-S instructions state that the survey is intended to understand "*what people think after having experienced a negative or traumatic event*" and every item references a thinking strategy (Garnefski et al., 2002, p.11, their emphasis). On the other hand, every item on the SCS-SF references a feeling.

The CERQ-S added substantial value to this study for two main reasons. First, it allowed the researcher to understand which of the theoretically more helpful cognitive strategies (i.e. Positive Reappraisal, Planning, Perspective taking, etc.) are deployed in

comparison to the less adaptive strategies (i.e. Catastrophizing, Self-blame and Other-blame) when coping (Garnefski and Kraaij, 2006). Thus, in the context of this study, the CERQ helped the researcher understand the extent to which each of the nine given strategies were most useful for teachers in an international setting. Secondly, the CERQ helped this study to identify where the nine cognitive strategies fell in relation to various measures of self-compassion. Research on CER suggests that a tendency for unhelpful strategies would correlate with depression, which itself also correlates with lower levels of self-compassion (e.g. Garnefski et al., 2005; Sirois et al., 2015; Soysa and Wilcomb, 2013). The findings from this study offered a useful contribution to the understanding of teacher stress and to the wider body of literature on the emerging fields of cognitive emotion regulation and self-compassion. These two areas have not been deeply researched in the context of international education.

### **Reliability and validity**

According to the CERQ administration manual, the questionnaire is suitable for use in different populations with various educational backgrounds (Garnefski et al., 2002). The internal consistency of the nine CERQ scales has been shown to be well over .70 and some were over .80, meaning that even across diverse populations the reliability is good to very good (Garnefski et al., 2002). This data was useful to this study because research comparing the longer CERQ and the short form (CERQ-SF) found near perfect test-retest correlations (range from 0.48 to 0.65), which suggests that data regarding the cognitive coping styles are reasonably stable between the two instruments (Garnefski and Kraaij, 2006). It is worth noting that the factor analysis was found to be invariant across subgroups, including gender and age (Garnefski and Kraaij, 2006).

### **Scoring**

Responses to each statement are modelled on a one to five-point Likert-scale format: (almost) never, sometimes, regularly, often, (almost) always. For the 18-item CERQ-SF, two statements (instead of four) represent a single cognitive strategy. Research has shown some explainable overlap between constructs of 'putting into perspective' and 'positive reappraisal' (Garnefski and Kraaij, 2006). Scores for the two statements were determined using a mean and standard deviation and are presented in table 3.4 next.

### Normative ranges for CERQ-SF scores:

<i>Table 3.4: Normative scale properties of the CERQ-SF: Cronbach's alpha reliabilities, means, standard deviations.</i>			
CERQ scales (Item numbers as they appear in the survey)	Cronbach's alpha reliability with the CERQ	Mean	SD
Self-blame (4, 14)	0.68	4.13	1.81
Acceptance (1, 5)	0.73	5.49	2.14
Rumination (2, 6)	0.79	4.98	2.04
Positive refocusing (7, 11)	0.80	4.54	1.94
Refocus on planning (12,15)	0.79	6.05	2.12
Positive reappraisal (3, 8)	0.81	6.23	2.25
Putting into perspective (13, 16)	0.79	5.85	2.16
Catastrophizing (9, 17)	0.81	3.30	1.64
Other-blame (10,18)	0.77	3.10	1.53
<i>CERQ-SF =Cognitive Emotion regulation Questionnaire Scale–Short Form; SD =Standard Deviation. Taken from (Garnefski and Kraaij, 2006, p. 248)</i>			

### Rationale for specifying the order of data collection instruments

For the feasibility study, the TIP was conducted first. As stated, the resources available to this study's investigator and respondents limited its usability and the TIP was not used in stage three.

Moving forward, the study relied on the following instruments: 1) The Perceived Stress Scale-Short (PSS), 2) Self-Compassion Scale Short Form (SCS-SF), 3) The Cognitive Emotion Regulation Questionnaire (CERQ-S) (these are presented in complete form, along with the rest of the survey, e.g. informed consent, demographic questions, mindfulness practice, etc., in the appendix). When using multiple data collection instruments, thought was given to the order in which the data was collected. This is because prior research has demonstrated that there is an "*increase in speed of response when targets are preceded by a semantically related as opposed to a semantically unrelated prime*" (Storbeck and Clore, 2008, p. 209). This is known as '*priming*'. There are multiple categories, or types, of priming, but in effect, priming is a way to make thoughts and feelings more accessible, and therefore likely to be used, compared to less relevant information (Kahneman, 2011).

The PSS-4 explicitly asked a respondent to recall the previous month with a particular focus on their experience of stress and the details of a particularly stressful event. Storbeck and Clore (2008) posit that priming extends beyond language and into the affective domain because emotions, like memories, are linked to congruent concepts. Thus, it could be argued that conducting the PSS-4 prior to the CERQ-SF or SCS-SF may



have activated semantic or affective associations regarding instances of coping and thus provided more authentic responses than if the data on coping were gathered first. Moreover, it could be argued that inquiring about mindfulness in general, or MBSR specifically, before administering the other instruments could have primed respondents in the other direction; that is, to give responses that are more in line with stress-reduction. Questions regarding MBSR were, therefore, asked at the end of the study for both stages one and three.

### **Data points not collected**

Data regarding at home practice, social supports and enthusiasm were accepted in non-specific terms. At-home practice was not controlled for as an exclusion factor because this study was looking at general trends in outcomes for typical participation. The act of extending or deepening one's social circle through participation in a meditation cohort for eight weeks is a factor that is likely to reduce stress. Similarly, a participant's enthusiasm for possible reductions in stress from MBSR may in and of itself account for reduced stress through the placebo effect, which is the expectation that something might happen as a result of an intervention. Neither social supports nor enthusiasm were controlled for in this study, however, for the following three reasons: 1) the act of extending a social circle is not an explicit goal of MBSR 2) the assumption that data from those who were excited about the course are negated by those who were less so and 3) the course lends flexibility, and therefore opportunity, to MBSR course instructors to emphasize social dynamics and others to minimize them. In summary, this part of the retrospective study aimed to capture the average trends and general outcomes of typical participation.

## **Chapter IV: Findings**

This chapter is presented in three sections. Because of the staged approach to data collection, findings are presented in a non-traditional manner. The findings of each stage of the study are presented as raw data first, followed by an account of the approach to data analysis, then an interpretation of the data, concluding with a brief discussion. The implications, limitations and directions for future research will be reserved for Chapter V. The first section presents the data from Stage One, "Perceptions of Stress Amongst Teachers in an International School." The second section presents findings from the feasibility study. The third section presents data from the final study.

## **Stage one**

The aim of stage one was to gather data regarding the prevalence of stress among teachers working in an international school. The next section first addresses the analytic approach. Then, the data is presented in raw totals and percentages (table 4.1). Following that, there is an interpretation of these results. Next, the section offers a cross-tabulation of data in a graphic organizer (tables 4.2 and 4.3). In order to understand the interaction between the variables, non-responses were not factored into the analysis, but were clearly identified as a non-response. The section concludes with an interpretation, discussion and assessment of the limitations of the results presented in tables 4.1, 4.2 and 4.3.

## **Analytic approach**

Analysis of the data presented below relied on software from Qualtrics, an online survey and data analysis tool. Table 4.1 presents the data in percentages and raw totals. Table 4.2 presents the results of the cross tabulation showing the interactions between variables. The data was separated and categorized to test the relationship between an individual's amount of stress and the perception that stress had an impact. Amounts of stress were cross-tabulated against 1) feelings about the future, and 2) overall job satisfaction. The intent of this analysis was to understand whether, and if so, how, an individual's appraisal of stress influenced these factors. The analysis did not control for attempts at stress reduction because nearly every teacher that reported stress also reported, stress reduction efforts, and therefore, not enough data was available to draw meaningful conclusions.

## Data table 4.1: results of stage one

*Table 4.1: Frequency of stress, perceived impact, and stress reduction among international schoolteachers working abroad; presented by percentage and totals*

<b>Frequency of stress:</b> How much stress did you experience in the past school year?	%	Count
Relatively little stress	14.29%	13
A moderate amount of stress	50.55%	46
A lot of stress	35.16%	32
Total	100%	91
<b>Perceived Impact:</b> During the past school year, how much effect has stress had on your ability to execute the duties of teaching?	%	Count
A lot	13.04%	12
Some	60.87%	56
Hardly any, or none	26.09%	24
Total	100%	92
<b>Attempts to reduce stress:</b> During the past school year, have you taken any steps to control or reduce stress?	%	Count
Yes	89.53%	77
No	10.47%	9
Total	100%	86
<b>Sense of uncertainty:</b> How do you feel when you think about your future as a teacher?	%	Count
Hopeful	45.88%	39
A relatively little amount of uncertainty	22.35%	19
A moderate amount of uncertainty	22.35%	19
A lot of uncertainty	10.59%	9
Total	100%	85
<b>Job satisfaction:</b> Overall, do you like your job?	%	Count
Yes	73.26%	63
Somewhat	24.42%	21
No	2.33%	2
Total	100%	86
<i>%=Percentage, count = number of respondents per item. Survey questions adapted from: Keller et al., 2012, p. 680</i>		

## **Interpretation of results**

As a point of reference, the questions in Stage One were adapted from a major study on perceptions of stress that surveyed 28,753 US adults (Keller et al., 2012, p. 680). This study found:

Overall, 35.3% and 20.2% of this sample of U.S. adults reported experiencing a moderate amount or a lot of stress in the past year, respectively, and 32.9% had taken steps to control or reduce stress in their lives. (Keller et al., 2012, p. 680).

Roughly half of the typical U.S. population was affected by stress and about one-third was trying to control or reduce it.

The survey for this stage of the study answered the following three questions:

1. Are teachers who work in international school settings experiencing stress?
2. If so, how do they perceive the impacts of the stress?
3. Are teachers working in an international school setting taking steps to respond to their perceptions of stress?

In respect to questions one and three, Table 4.1 shows that, overall, 50.6% and 35.1% of this sample of teachers working abroad reported experiencing a moderate amount or a lot of stress in the past year, respectively. The remaining 14.3% reported relatively little stress. It is no surprise, therefore, that 89.5% of teachers also reported that they had taken steps to control or reduce stress in their lives. Roughly ninety percent of the typical international teaching population surveyed were reportedly affected by stress. This does not seem to affect their feelings about teaching in their schools, however.

When thinking about their current overall job satisfaction, 73.3% of teachers reported that they like their jobs. A line of questioning about the future attempted to assess, in a very general sense, the prevalence of anxiety and worry when thinking about school and the school year. When thinking about their future, 45.9% reported feeling 'hopeful', while the remaining respondents reported some degree of uncertainty.

## Amount of stress and its impact

As seen in table 4.2 below, the analysis shows that the amount of stress has impacts on feelings about the future and overall job satisfaction. Specifically, as the amount of stress increases, so does the likelihood that a teacher will report increasing amounts of uncertainty and less satisfaction with their job. One way to view this data is that stress is a term that allows teachers safely to express feelings that are more subtle and specific, such as uncertainly and reduced satisfaction. Indeed, 96.3% of all respondents that felt either '*a lot*' or a '*moderate amount*' of uncertainty also had either '*a lot*' or a '*moderate amount*' of stress. Likewise, this group comprised 95.2% of all respondents that reported that they liked their job '*somewhat*.'

Additionally, in table 4.3, the data suggested that believing that stress has an effect also appears to have a relationship with teachers' overall job satisfaction when compared to teachers that viewed stress as having hardly any, or no effect. Specifically, the perception that stress has '*hardly any effect*' on teaching correlates with an increased likelihood for job satisfaction; 82.6% of these respondents reported that they liked their job overall. Whereas, only 76.9% and 36.4% of respondents that believed stress had affected their teaching '*some*' or '*a lot*' reported liking their job, respectively. This supported the speculative claim that teacher stress can influence the extent to which a teacher experiences "*feelings of satisfaction or dissatisfaction with his or her job and life situation more generally, which may influence this individual's commitment level to his or her work*" (Montgomery and Rupp, 2005, p. 466).

Perceptions of stress also appeared to correlate with feelings of uncertainty about the future. For example, the percentage of all respondents in each '*effect category*' showed decreases in uncertainty and increases in hopefulness as the perceived effect decreased. In other words, 90% of the teachers who felt that stress had affected their teaching '*a lot*', also had either '*a lot*' or a '*moderate amount*' of uncertainty about the future. On the other hand, roughly the same amount (87%) of teachers who reported feeling that stress had '*hardly any, or no effect*' reported feeling either '*hopeful*' or '*a relatively little amount of uncertainty*'.

## Data table 4.2: Interaction of results of stage one

Table 4.2: Interaction between amount of stress and uncertainty and general job satisfaction among international schoolteachers working abroad; presented by totals (black), row percentages (red/middle), column percentages (blue/bottom).

		How do you feel when you think about your future as a teacher?					Overall, do you like your job?				
		Hopeful, A relatively little amount of uncertainty	A moderate amount of uncertainty	A lot of uncertainty	Non-Response	Total	Yes	Somewhat	No	Non-Response	Total
How much stress did you experience in the past school year?	Relatively little stress	12 92.3% 20.7%	0 0.0% 0.0%	1 7.7% 11.1%	0 0.0% 0.0%	13 100.0% 13.4%	12 92.3% 19.4%	1 7.7% 4.8%	0 0.0% 0.0%	0 0.0% 0.0%	13 100.0% 13.3%
	A moderate amount of stress	32 69.6% 55.2%	8 17.4% 44.4%	3 6.5% 33.3%	3 6.5% 23.1%	46 100.0% 47.4%	36 78.3% 58.1%	7 15.2% 33.3%	0 0.0% 0.0%	3 6.5% 23.1%	46 100.0% 46.9%
	A lot of stress	14 45.2% 24.1%	10 32.3% 55.6%	5 16.1% 55.6%	3 9.7% 23.1%	31 100.0% 32.0%	14 43.8% 22.6%	13 40.6% 61.9%	2 6.3% 100.0%	3 9.4% 23.1%	32 100.0% 32.7%
	Non-Response	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	7 100.0% 53.8%	7 100.0% 7.2%	0 0.0% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	7 100.0% 53.8%	7 100.0% 7.1%
Total		58 59.8% 100.0%	18 18.6% 100.0%	9 9.3% 100.0%	13 13.4% 100.0%	97 100.0% 100.0%	62 63.3% 100.0%	21 21.4% 100.0%	2 2.0% 100.0%	13 13.3% 100.0%	98 100.0% 100.0%



**Data table 4.3: Perception of stress and its impact**

*Table 4.3: Interaction between perceived impact and uncertainty and general job satisfaction among international schoolteachers working abroad; presented by totals (black), row percentages (red/middle), column percentages (blue/bottom). Non-responses were necessarily omitted from the cross analysis; totals are different than Table 4.2*

		How do you feel when you think about your future as a teacher?				Overall, do you like your job?			
		Hopeful, A relatively little amount of uncertainty	A moderate amount of uncertainty	A lot of uncertainty	Total	Yes	Somewhat	No	Total
During the past school year, how much effect has stress had on your ability to execute the duties of teaching?	A lot	1 10.0% 1.7%	6 60.0% 31.6%	3 30.0% 33.3%	10 100.0% 11.8%	4 36.4% 6.3%	6 54.5% 28.6%	1 9.1% 50.0%	11 100.0% 12.8%
	Some	37 71.2% 63.8%	11 21.2% 57.9%	5 9.6% 55.6%	52 100.0% 61.2%	40 76.9% 63.5%	11 21.2% 52.4%	1 1.9% 50.0%	52 100.0% 60.5%
	Hardly any, or none	20 87.0% 34.5%	2 8.7% 10.5%	1 4.3% 11.1%	23 100.0% 27.1%	19 82.6% 30.2%	4 17.4% 19.0%	0 0.0% 0.0%	23 100.0% 26.7%
	Total	58 68.2% 100.0%	19 22.4% 100.0%	9 10.6% 100.0%	85 100.0% 100.0%	63 73.3% 100.0%	21 24.4% 100.0%	2 2.3% 100.0%	86 100.0% 100.0%

## **Discussion of stage one**

This study showed that stress and uncertainty are key features of teaching in an international school. This stage of the study indicates that teachers reporting a high amount of stress also felt that it was having a big effect on their ability to execute their duties. The belief that stress was having an effect also seemed to correlate with a greater sense of uncertainty about the future and less overall job satisfaction than among those who reported stress as having hardly any effect.

## **Implications of stage one**

The findings present implications for educational leaders in international schools. Teachers in this setting are particularly vulnerable to stress and the results show that it is having an effect on their ability to feel satisfied with their jobs. The amount of stress a teacher believed they had experienced in the past school year appeared to be a greater predictor of 1) increased uncertainty and 2) less job satisfaction. Moreover, the vast majority of this population is taking steps to cope with stress, although it appears that this has had little effect. School leaders need to pay attention to the issue of teacher stress as it probably affects the majority of their teaching staff. Notably, however, these relationships are only correlational; there is insufficient data in this study to support the notion that amounts or perceptions of stress cause these outcomes, or vice versa.

These findings make it clear that the appraisal of past stress played a role when teachers were mentally forecasting their futures. This data supports the notion that stress and anxiety are affected by a mental process of meaning making (i.e. the appraisal process) (Gross, 2013; Lazarus, 1966). This part of the study makes a key contribution to the literature base on stress by testing the role of the appraisal process. The appraisal of stress clearly has effects on other outcomes: the ways in which a teacher appraised their past seemed to be related to the ways in which they thought about their job in the present and about foresaw their future. It follows that the appraisal process is a pathway through which stress and in particular, teacher stress can be mediated.

## **Limitations and directions for future research**

The findings above must be taken thoughtfully in terms of causation. For example, high levels of uncertainty about the future may be causing a lot of stress, not vice versa. It is also unclear if teachers felt that uncertainty was necessarily problematic. Future research should investigate these relationships further as they have practical implications for stress management. Educational researchers might use a longitudinal design to assess whether high anticipatory job satisfaction mediates stress.

Regrettably, the number of surveys distributed was not tracked. Future studies should consider this data in order to maximize response and completion rates. It should also be understood that this first stage of the study allowed respondents to skip questions. Because reflecting on the issue of stress at school might have elicited emotional discomfort, this was determined to be an important and ethical decision. The result, however, was that several respondents chose not to respond to portions of the survey, resulting in some incomplete data, which was identified as a “non-response” in the analysis. To be clear, only fully completed surveys were used in the analysis of Stage one. Because of this, in stage three, the option to partially complete a survey was withdrawn, however, respondents could have still exited the survey at any time.

## **Stage two**

## **Analytical approach: the pilot study**

The pilot study was conducted at the SENIA international school conference held in Kuala Lumpur, Malaysia in March of 2016 (referenced in Chapter III under the subheading: “Sample recruitment”). The survey for this stage of the study aimed to gather qualitative data regarding the following two research questions:

1. How do teachers perceive the effects of the stress?
2. How are teachers working in an international school setting responding to (coping with) stress?

To answer these questions, this phase of the study utilized structured and unstructured interviews. The respondents first completed the PSS-4 and CERQ short-form and then the unstructured TIP. All research was conducted face-to-face in a semi-private area.

Data from the TIP was analysed for consistency in content; specifically, responses were evaluated for evidence of the following:

1. An internal or external focus on job stressors and stress management (Section III, opening question, follow-up questions 2, 3, 4, 5)
2. A preference for public or private coping (Questions 5, 6, 7, 8, 10)
3. Knowledge of role boundaries and expectations (Section II, question 2, Section III, questions 8, 9)
4. Perceived impacts of stress and stressors (Questions 1, 2, 3, 10)

## Results of stage two

With regard to the findings that pertain to the (re)design of stage three, stage two provided some valuable insights. First, despite the research desk remaining open for the entirety of the three-day conference, the average face-to-face interview took 40-60 minutes, therefore allowing for a total of sixteen respondents to participate. Of that sixteen, unfortunately no participant was able to complete the full interview and the battery of tests; in particular, under the time constraints, not a single respondent was able to complete the SCS or SCS-SF. The pilot study therefore clearly showed that the researcher had underestimated the length of time it would take a respondent to complete all of the proposed questionnaires and the TIP.

Several key findings emerged regarding the research questions. First, teachers consistently demonstrated a tightly held belief that a specific stressful experience was a by-product of the context and setting. Put differently, for the teachers interviewed, stressors, not appraisal, accounted for stress; meaning, they externalized their feelings. The stressors, however, were stressful insofar as they contributed to a sense of imminent social isolation from the wider group. This will be explained next.

When teachers were asked to describe some of the most stressful aspects of their job, every respondent made reference to a sense of psychological safety stemming from maintaining membership in their wider social group. Despite the range of stressful events that teachers offered, these events were understood according to the effort it took to navigate the overt and covert rules of the social group. One respondent noted that their recent source of stress was the following: *"The different personalities of the different teachers makes it difficult for me to do my job."* Similarly, another respondent said: *"Administrators stressed me out a lot; they roadblock me."* Safety within the wider social group was also apparent when issues of change were blamed as a cause of stress. Respondent three said: *"Change happens quite often in an international school; too many changes, especially with staff and leadership."* Conversely, one respondent noted that stress came from the absence of her primary social group; she said:

Being international means that my time, my life doesn't allow me to execute the things that I want to do. For example, there's an illness in my family but I'm not able to go visit them.

In summary, in every interview, it was apparent that feelings surrounding actual or potential isolation seemed to underpin a narrative about stress, regardless of the story's details.

When these teachers were asked to describe a recent specific event that caused them stress, respondents again referred to an incident and solution involving a school-related relationship. For example, one teacher said her issue was *"stressful because I'm dancing around administrators now."* While this could be taken as evidence of the need for specific role boundaries, the sentiment was clear: the dynamics of the new relationships were uncertain and that evoked feelings of potential isolation. Another teacher expressed the feeling that they were not relevant to the social group and then offered evidence of broken promises, which were apparently internalized. She said, *"I was promised more staff but it didn't happen. I don't really feel like (my position) is a priority."* This line of reasoning appeared in another teacher who commented that she felt socially irrelevant when her position was not given the support promised; she said: *"A female colleague of mine went on maternity leave and they were not replaced. So, no cover."* In every scenario, the potential for social isolation was juxtaposed to feelings of stress. This was also the case for more traumatic events as well. For example, one teacher mentioned her stress stemmed from a tragic loss. She said:

We had a child commit suicide. I taught the child for five years but half the staff did not know that child, because that is the nature of international teaching.

Germer and Neff (2013, p. 857) noted that the social group functions to normalize suffering; for example, *"by remembering the shared human experience, we feel less isolated when we are in pain."* For this teacher, the experience was not a shared one; feelings of stress seemed to parallel a lack of 'common humanity' and coping involved appraising the isolation as somehow inherent to life overseas. In summary, whether general or specific, teacher stress was strongly related to feelings of isolation.

Extending the above, re-affirming a sense of common humanity provided a renewed sense of psychological safety within the social group and was also seen as a solution to stress. Specifically, when teachers were asked what they did to cope in the situation, they uniformly referenced an attempt to reduce feelings of isolation. For example, one teacher said: *"I established a learning community and have peers' support,"* another



noted, *"I talked to other staff. I also talked to leadership via meeting minutes."* Likewise, respondent four said that in order to cope, *"I chatted with friends, sought assurance."* In short, respondents expressed that gaining reassurance from the social group was very therapeutic. They also felt that this was the most effective strategy. Consider responses to the TIP question: "On a scale of 1-10, how would you rate your success in coping with this situation? 1 is 'not at all' and 10 is 'very well'." The data showed that the mean and mode scores were 8 'eight', with the range of just 3 'three'. Even in the absence of specific criteria for adaptive outcomes, coping with stress successfully also seems to have been influenced by, if not a by-product of, psychological safety within the wider social environment.

## Discussion of findings from stage two

The findings above lend a particularly useful contribution to the recent research on the construct of Self-Compassion. Germer and Neff (2013, p. 857) found:

Individuals who were higher in self-compassion demonstrated less extreme reactions, less negative emotions, more accepting thoughts, and a greater tendency to put their problems into perspective.

The data from these interviews seemed to support those claims. While each interviewee offered a situation that was arguably unique, the role of feelings of isolation from the social group was apparent in each case, from broad and general stressors, to specific events and steps for coping. This analysis echoed that of previous studies on teacher stress in an international setting (e.g. Bunnell, 2004; Sunder, 2013).

The third element of self-compassion is 'mindfulness vs. over-identification' with the issue (Neff, 2016). This research made a contribution to that part of the overall construct. For example, in these interviews, teachers that did not strongly identify with the issue expressed a reduced need to cope with it. Consider respondent six (who rated her success at coping as a '10') who mentioned that she did not need to cope with the stress of her situation because "*I know that's just how (the other teacher) is, so I don't take it personally.*" This teacher was able successfully to place her negative feelings outside of herself. On the other hand, teachers that identified strongly with an issue were more stressed. For example, the respondent who rated her coping as the lowest of all respondents said that her event was stressful for her because:

I feel like I failed (the student). There are the crisis kids at every school, but there is this added pressure that the student needs me. The trajectory of her life will be completely different because of what I do or don't do.

This teacher clearly felt that her role within her social group, which underpins a sense of belonging, was somehow connected to a student's outcomes, despite the innumerable other variables that were influencing the student. These findings support the claim that reductions in stress correlate with increases in mindfulness; specifically, not overly-identifying with a stressful event (Germer and Neff, 2013).

These findings also support the theory that stress is the by-product of an appraisal of the person-environment relationship (Lazarus, 2000, 1966). It would appear that for

teachers, the role of appraisal relied heavily on a particular reference point: the person doing the appraising (i.e. 'to what extent does this threaten my sense of self?'). The extent to which a teacher appraised their role within their social relationships as being safe (i.e. feeling valued, seen, heard, etc.) appeared to be a greater predictor of stress and successful coping than exposure to stressors or specific action steps for coping themselves.

These findings also support research on emotion regulation, with particular regard for the process of 'cognitive change', which posits that one might appraise a situation specifically to alter its emotional implications (rather than to affect a rational outcome) (Gross and Barrett, 2011). Moreover, this research advances that notion to suggest that the emotion regulation (i.e. coping) process is not exclusively individual; it appears to also be a function of the wider social group whereby teachers use stress as a vehicle to address their individual needs for psychological safety through securing their social bonds with others or reaffirming the value of their work, or both (Czander, 1993; Gross, 1998; Lazarus, 2000). This suggestion builds on Object Relations Theory and Social Constructivist theory to suggest that teachers will spell out what their needs are, and seek to get them met, against the backdrop of their social environments and relationships.

Building on the notion that organizations can collectively operate to regulate the emotions of an individual, the findings also make a valuable contribution in support of ORT with regard to the hypothesized phenomenon of organizational projection. For Czander (1993, p. 243), the concept of simple projection in an organization manifests as follows:

The person unconsciously attributes to another object a characteristic that is his/her own. These attributes are generally anxiety-producing effects such as hatred, envy, greed or other feelings that are experienced as intolerable. Another way of viewing this defense is to consider it a process whereby an internal threat is made into an external threat. This is most apparent in groups where collective or collusive projections become a powerful force in fostering cohesion.

These interviews demonstrated that projection helped to establish a sense of common humanity by reinforcing the belief that the objects and others are to blame for negative

feelings. Further, the data suggests that projection functions as a tool for coping that provides a sense of safety for the teacher and safety for the group in that it reduces the tendency for over-identification with an issue for the individual and the group. In other words, projecting negative feelings onto an object or person allowed the teachers to bond around a common enemy, so to speak.

## **Implications of findings from stage two**

Applying the theory of Social Constructivism, the language teachers use to describe their stress may serve as a dynamic form of group knowledge that binds this particular social group together. In this study, a sense of isolation from the group was certainly something that teachers were worried about. Although they largely pointed to stress as something that was problematic, this research suggests that stress helped teachers achieve the following: 1) (re)connect to deeper values 2) establish cohesive bonds with their peers 3) develop compassion for others 4) advance group cohesion 5) develop or reassure the meaning of their role. There are also countless examples, however, where stress could equally lead to chaos, especially when appraised to mean further isolation from the wider group, and school leaders should understand these differences. Stress, however, appeared to be a vehicle through which teachers reaffirmed their role among their peer group. This supports a Social Constructivist interpretation and suggests that stress, if considered as a tool, may help school leaders clarify teachers' roles and role boundaries and actively appreciate their contributions.

This data suggests that within an unfamiliar social setting like an international school, the rules of entry and maintenance into the social group, although arguably vague, should be taken seriously. For teachers experiencing stress, relationships function somewhat reliably to restore a sense of safety (belonging and acceptance) and reduce stress. Because of the propensity to manage teacher stress through social relationships, it follows that the affective qualities of stress have the potential to spill over into the group's overall narrative and affect the wider school climate, even for other teachers who have not experienced congruent stressors. At a minimum, this data highlights the need for schools actively to cultivate a sense of social and emotional safety among staff.

## **Limitations and directions for future research**

The interpretation of the findings above should take account of the small sample size. The sample size was constrained by the limits inherent to in-depth interviews being conducted by a single researcher. Moreover, data came only from teachers that were willing to devote time to engaging with the surveys. Because a defining feature of teacher stress is a 'sense of urgency' (Montgomery and Rupp, 2005), it should be considered that teachers that were experiencing stress may not have felt that they had the time to engage with a time-heavy interview, despite being clearly removed from their daily settings and in a conference environment. Nonetheless, the interpretation of the findings points to the quality of social connectedness as an important factor for the well-being of teachers working abroad. This has practical applications for future researchers aiming to improve the quality of working in an international setting. An interesting research question would investigate whether training in Mindful Self-Compassion could increase the quality of school-based relationships for teachers working in a high-risk stress setting, such as a country with high poverty or crime.

## Stage three

One interpretation of the data suggests that teachers who accept international placements, find the reality of living overseas stressful. This project was undertaken to better understand the stress that they report and the coping mechanisms that they use to deal with it. In the course of the project, three survey instruments were completed in full by a total of 63 teachers: the Perceived Stress Scale (PSS-4) (Cohen et al., 1983) the Self Compassion Scale – Short Form (SCS-SF) (Raes et al., 2011), and the Cognitive Emotion Regulation Questionnaire – Short Form (CERQ-Short) (Raes et al., 2011). In the next section, the data is presented in numerical form according to the respective analysis. This is followed by an analysis of the research questions as appropriate.

The data in Stage Three is presented differently than in Stages One and Two in that a more robust interpretation emerges when the data are taken collectively rather than individually. For example, if the analysis were to look at one set of results, such as the scores of the CERQ-SF, a statistically valid interpretation of Teacher Stress, along with implications, could be made on the basis of Cognitive Emotion Regulation alone (i.e. Teacher stress is related to maladaptive thinking styles). When the results are taken collectively, however, a strong and consistent relationship between Teacher Stress and self-compassion tells a different story about the potential sources of, and solutions to, Teacher Stress (i.e. Teacher Stress is more strongly related with lower self-compassion, which also has a relationship to maladaptive thinking styles). In lieu of implications and limitations for each result, therefore, overall contributions and limitations have been largely reserved for Chapter V: Discussion.

### **Analytical approach of stage three**

The three surveys that were administered were tallied according to the guidelines presented in their respective instruction manuals (i.e. Cohen et al., 1983; Garnefski and Kraaij, 2006; Neff, 2015). For the PSS-4 and SCS-SF, this required reverse scoring on several items, and then calculating totals and weighted means respectively. Data on the CERQ-SF uses the means of two given items that relate to each of the nine aforementioned cognitive strategies (table 3.4). Data were presented according to the following three subsections: PSS-4 scores, SCS-SF scores and CERQ-SF scores for each of the nine cognitive strategies measured. In addition, the analysis compared 1) the interaction between Self-Compassion and perceived stress 2) the interaction between each of the nine cognitive emotion regulation strategies and perceived stress 3) the difference between international schoolteachers and normative values for each category. For the PSS-4, correlational analysis was conducted according to higher levels of stress (score 7 and up) and lower levels of stress (score 6 and below).

For each of the above, calculations included: the number of observations (respondents), mean, variance, pooled variance, hypothesized mean difference, P-Values ( $P(T \leq t)$ ,  $t$  Critical one-tail, two-tail,  $t$  Critical two-tail), statistical significance and confidence intervals. Regression statistics (Multiple R, R Square, Adjusted R Square and Standard Error) were calculated for each of the cognitive strategies. These calculations were based on uniform recommendations for statistical analysis in the social sciences (for examples of these recommendations, see: Hedges and Rhoads, 2010; Liu, 2014). Scoring and statistical analysis were done electronically using Qualtrics online software and on a MacBook computer using Microsoft Excel and SPSS. In the section that follows, results are limited to those that were found to have p-values that are statistically significant or approaching statistical significance. Conventional criteria for social sciences suggests that small, medium and large p-values are understood to be expressed as: 0.2, 0.5 and 0.8 respectively (Cohen, 2013, pp. 25–27). Indications are made to reflect where data was analysed and no statistically significant findings emerged.



## Results of stage three

### PSS-4 results

Table 4.4: Mean, S.D., Variance for the PSS-4 for international schoolteachers				
	All teachers (n=63)	All teachers, excluding MBSR (n=46)	MBSR Group (n=17)	Normative values*
Item	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	Mean (S.D.)
PSS-4 totals	6.14 (3.09)	6.04 (2.91)	6.41 (3.62)	6.11 (3.14)
PSS-4 totals Male	5.42 (2.64)	5.55 (2.69)	5.00 (3.00)	5.56 (3.04) (33% of sample)
PSS-4 totals Female	6.31 (3.19) (n=51)	6.16 (2.98) (n=39)	6.71 (3.77) (n=14)	6.38 (3.15) (67% of sample)
PSS-4: Four item Perceived Stress Scale. S.D.= Standard Deviation. *Normative values are taken from "Table 2" in Warttig et al., 2013, p. 1621.				

Table 4.4 above shows that while teachers informally reported high levels of stress as a result of their international placements, the average for these teachers, on the PSS-4, was exactly the same as the overall norm for the scale (Norm=6.11, International Teachers =6.14). This is a surprising finding given that PSS-4 is a self-report scale. Moreover, there is a difference between non-MBSR (mean 6.04) and the MBSR group (mean 6.41). This suggests that the MBSR group has *higher* stress; however, the difference is not considered statistically significant. More will be said about this result in Chapter V: Discussion.

### SCS-SF results

	All teachers (n=63)		All teachers, excluding MBSR (n=46)	MBSR Group (n=17)	Normative values*
	Mean (S.D.)		Mean (S.D.)	Mean (S.D.)	Mean (S.D.)
SCS-SF total**	<b>38.71 (9.34)</b>	<b>t=2.34, p=.02</b>	38.02 (9.45)	40.59 (9.04)	36.00 (7.33)
SCS-SF total Male	42.08 (8.22)		41.44 (9.04)	44.00 (6.08)	***
SCS-SF total Female	37.92 (9.49)		37.19 (9.49)	39.85 (9.57)	***
SCS-SF = Self-Compassion Scale-Short Form; SD =Standard Deviation. *Normative values are taken from taken from Raes et al., 2011, p. 253. **Overall self-compassion scores were calculated by reverse coding the self-judgment, isolation, and over-identification items then summing all six subscale means as directed by Neff, 2003, p. 243. *** “These are not established; not all versions of the SCS-SF use the same X-point scale” (Raes, 2016, personal communication).					

According to conventional criteria, the difference between all international schoolteachers surveyed (Mean 38.71) and normative values for SCS-SF (Mean 36.00) is

considered to be statistically significant. The data, as presented in table 4.5, indicates that the international teachers surveyed scored *higher* on measures self-compassion than samples from other studies ( $t=2.34$ ,  $p=.02$ ).

## CERQ-SF results

<i>Table 4.6: CERQ-SF, means, S.D. and total score for international schoolteachers surveyed</i>						
Cognitive Emotion Regulation Strategies	All teachers (n=63)	Normative values*	Significant Differences than the norm.		MBSR Group (n=17)	All teachers, excluding MBSR (n=46)
	Mean (S.D.)	Means (S.D.)	p (2 tail)	t - Value	Mean (S.D.)	Mean (S.D.)
<i>Non-adaptive</i>						
<b>Self-blame</b>	<b>6.08 (1.85)</b>	4.13 (1.81)	p<0.001	8.35	5.06 (1.60)	6.46 (1.81)
Catastrophizing	4.25 (1.68)	3.30 (1.64)	p<0.001	4.50	4.06 (2.25)	4.33 (1.45)
<b>Rumination</b>	<b>6.54 (1.66)</b>	4.98 (2.04)	p<0.001	7.44	6.76 (1.30)	6.46 (1.79)
<b>Other-blame</b>	<b>3.65 (1.05)</b>	3.10 (1.53)	p<0.001	4.16	3.76 (0.90)	3.61 (1.11)
<i>Adaptive</i>						
Positive refocusing	4.60 (1.77)	4.54 (1.94)	p<0.001	7.28	5.06 (1.95)	4.43 (1.70)
<b>Acceptance</b>	<b>7.22 (2.05)</b>	5.49 (2.14)	p<0.001	6.70	7.18 (1.98)	7.24 (2.10)
<b>Refocus on planning</b>	<b>7.29 (1.86)</b>	6.05 (2.12)	p<0.001	5.27	7.47 (1.81)	7.22 (1.90)
<b>Positive reappraisal</b>	<b>7.75 (2.02)</b>	6.23 (2.25)	p<0.001	12.62	7.76 (2.02)	7.74 (2.04)
<b>Putting into perspective</b>	<b>6.56 (1.99)</b>	5.85 (2.16)	p<0.006	2.82	6.59 (1.87)	6.54 (2.05)
CERQ-SF =Cognitive Emotion regulation Questionnaire Scale–Short Form; S.D. =Standard Deviation.						
*Values taken from Garnefski and Kraaij, 2006, p. 248 Text in bold refers to outcomes that differ from normative samples.						

CERQ-SF measures nine mechanisms that people commonly use in dealing with stress. Four of these are considered positive adaptations and the other five are negative or non-adaptive. Table 4.6 presents the results for the international teachers as compared to the normative values. International teachers reported higher levels of three of the four maladaptive strategies as compared to the normative sample and of four of the five adaptive strategies. The strategies that they employed less than the normative sample were: *Catastrophizing* and *Positive Refocusing*. Note that calculations are based on a t-Test: two-samples assuming equal variances.

## Correlations among scales

### Interaction between perceived stress and CER. strategies

Table 4.7: Interactions between CERQ-SF and PSS-4 for international schoolteachers surveyed			
Cognitive Emotion Regulation Strategies	PSS-4		Interaction between Perceived Stress and C.E.R. Strategies
m=maladaptive, a=adaptive	r	p Value	PSS-4 totals (C.E.R. totals)**
Self-blame (m)	0.037	0.771	Higher (Higher) Approaching significance
<b>Catastrophizing (m)</b>	<b>0.392</b>	<b>0.001</b>	<b>Higher (Higher)</b>
<b>Rumination (m)</b>	<b>0.307</b>	<b>0.014</b>	<b>Higher (Higher)</b>
<b>Other-blame (m)</b>	<b>0.294</b>	<b>0.019</b>	<b>Higher (Higher)</b>
Positive refocusing (a)	-0.105	0.412	Higher (Lower) Approaching significance
Acceptance (a)	-0.188	0.140	Higher (Lower) Approaching significance
Refocus on planning (a)	-0.083	0.519	Higher (Lower) Approaching significance
Positive reappraisal (a)	-0.110	0.391	Higher (Lower) Approaching significance
<b>Putting into perspective (a)</b>	<b>-0.275</b>	<b>0.029</b>	<b>Higher (Lower)</b>
*Relationship is based on measures of statistical significance (r and p values). **Differences between MBSR and non-MBSR were not seen.			

Table 4.7 summarizes the results for correlations between the Perceived Stress Scale (PSS-4) and the nine coping mechanisms measured by the Cognitive Emotion Regulation Questionnaire – Short Form (CERQ-Short). All four maladaptive coping strategies were positively correlated with the Perceived Stress Scale (PSS-4), three of the four correlations were significant and one (*Self-Blame*) was not. All five of the adaptive coping strategies were negatively correlated with PSS-4, but only one, *Putting into Perspective*, was statistically significant. Further research is needed, with larger samples, to verify these results, given that more than half of them were non-significant, but it is worth noting the consistency of the correlations, with maladaptive strategies being used more and adaptive strategies less at higher perceived stress levels. This is consistent with the claim that suggests that people with lower stress use adaptive strategies more often (Garnefski et al., 2005). It could also support the notion that adaptive strategies give way to maladaptive strategies as stress rises (Raio et al., 2013).

### Interaction between perceived stress and self-compassion

The Perceived Stress Scale-Short Form (PSS-4) and the Self Compassion Scale – Short Form (SCS-SF) were strongly and negatively correlated ( $r = -.491$ ,  $p < .001$ ). This is consistent with previous findings (Hollis-Walker and Colosimo, 2011; Roeser et al.,

2013). Increased self-compassion reduces the likelihood that the individual will perceive high stress; conceptually, the inverse is also true. Teachers that have taken MBSR report more self-compassion than the non-MBSR group, but this is not statistically significant. Specifically, at this level of difference, approximately 50 MBSR and 50 'Other' would be necessary to reach significance (at  $p < .05$ ).

### Interaction between CERQ-SF and SCS-SF

<i>Table 4.8: Interactions between CERQ-SF and SCS-SF for international schoolteachers surveyed</i>			
Cognitive Emotion Regulation Strategies	Statistical relationships between CERQ-SF total and SCS-SF total		
(m=maladaptive, a=adaptive)	r	p Value	*(C.E.R total) S.C.S-SF total
Self-blame (m)	-0.235	0.063	(Lower) Higher / Significant for MBSR group
<b>Catastrophizing (m)</b>	<b>-0.518</b>	<b>0.001</b>	<b>(Lower) Higher</b>
<b>Rumination (m)</b>	<b>-0.256</b>	<b>0.042</b>	<b>(Lower) Higher</b>
<b>Other-blame (m)</b>	<b>-0.280</b>	<b>0.026</b>	<b>(Lower) Higher</b>
<b>Positive refocusing (a)</b>	<b>0.396</b>	<b>0.001</b>	<b>(Higher) Higher</b>
<b>Acceptance (a)</b>	<b>0.270</b>	<b>0.032</b>	<b>(Higher) Higher</b>
Refocus on planning (a)	0.100	0.434	(Higher) Higher / Approaching significance
<b>Positive reappraisal (a)</b>	<b>0.395</b>	<b>0.001</b>	<b>(Higher) Higher</b>
<b>Putting into perspective (a)</b>	<b>0.283</b>	<b>0.024</b>	<b>(Higher) Higher</b>
<i>*Relationship is based on measures of statistical significance (r and p values).</i>			

Table 4.8 summarized the results for correlations between the Self Compassion Scale – Short Form (SCS-SF) and the nine coping mechanisms measured by the Cognitive Emotion Regulation Questionnaire – Short Form (CERQ-Short). All four maladaptive coping strategies were negatively correlated with Self Compassion, three were significant; only *Self-Blame* failed to reach significance at  $p < .05$ ; although it did for the MBSR group. All five adaptive coping strategies were positively correlated with Self Compassion, four were significant; only *Refocus on Planning* failed to reach significance at  $p < .05$ . The findings were consistent with the discussions of previous studies (Germer and Neff, 2013; Gliebe, 2013; Hollis-Walker and Colosimo, 2011; Martin and Dahlen, 2005). Self-Compassion had a strong and consistent correlation with adaptive C.E.R strategies; however, the direction of the relationship was unclear. Perhaps higher levels of Self-Compassion made it more possible to employ adaptive coping strategies while lower levels were constrained to non-adaptive coping strategies.

## Mindfulness-Based Stress Reduction programme (MBSR)

Table 4.9: MBSR - *t* tests for those who participated in MBSR programmes versus those who did not.

	Non-MBSR		MBSR			
Scale	Mean	Variance	Mean	Variance	t Value	p Value
PSS-4	6.00	8.59	6.41	13.13	0.46	0.646
SCS-SF	38.11	91.15	40.59	81.76	0.92	0.359
<b>Self-Blame</b>	<b>6.46</b>	<b>3.28</b>	<b>5.06</b>	<b>2.56</b>	<b>2.80</b>	<b>0.007</b>
Catastrophizing	4.32	2.09	4.06	5.06	0.56	0.580
Rumination	6.46	3.19	6.76	1.69	-0.64	0.518
Other-Blame	3.61	1.22	3.76	0.82	-0.52	0.604
Positive Refocusing	4.43	2.87	5.06	3.81	-1.24	0.218
Acceptance	7.24	4.41	7.18	3.90	0.11	0.915
Refocus on Planning	7.22	3.60	7.47	3.26	-0.47	0.636
Positive Reappraisal	7.74	4.15	7.76	4.07	-0.04	0.965
Putting into Perspective	6.54	4.21	6.59	3.51	-0.08	0.938

Seventeen of the 63 international teachers reported completing an MBSR programme. The amount of time between taking the MBSR course was less than five years, noting that times varied from less than a year to over five years. Research suggests that this programme should have the effect of reducing perceived stress (PSS-4), enhancing self-compassion (SCS-SF), and increasing the use of adaptive coping strategies while reducing the use of maladaptive coping strategies (CERQ-Short) (see: Germer and Neff, 2013; Goldin and Gross, 2010). Table 4.9 contains the results of *t*-tests for comparisons between teachers who participated in MBSR programmes and those who did not, for all scales from the three surveys. Although MBSR programmes have shown short-term effects, the current evaluation measured longer-term effects and found no essential differences between those who participated in MBSR programmes and those who did not, with regard to perceptions of stress (PSS-4), self-compassion (SCS-SF), and eight of the nine coping strategies (CERQ-Short). The only substantive difference was that those who participated in MBSR programmes experienced *lower* levels of Self-Blame than those who had not participated. Due to the extremely small sample size, however, these results should be taken as an indication only.

## **Chapter V: Discussion**

This chapter will present a comprehensive interpretation of the data above from all three stages of the study. At the onset, it needs to be mentioned that as a former teacher and researcher-practitioner of meditation and self-compassion exercises, the first person and second person experiences have undoubtedly influenced the following interpretation of the empirical investigations into the topic. Because the following interpretation is based on retrospective data, it is not feasible to draw conclusions about causality or directions of influence. With that in mind, the section that follows will first offer an interpretation of the results from stage three with a specific focus on the second research question. Then, the section will accordingly offer an interpretation of the results from all three stages.

As a reminder, the second research question asked the following:

What is the relationship between ‘cognitive emotion regulation’, participation in MBSR, and Self-Compassion? To what extent do each of these strategies relate to levels of perceived stress among teachers working in a foreign international school setting?

The remainder of this section will therefore explore what we have learned about the various relationships between CER, MBSR and Self-Compassion, and the consequences for perceptions of stress.

## The relationship between CER strategies and perceptions of stress

To begin, recall that CER strategies comprise a response-focused, direct-action technique for emotion regulation (Garnefski and Kraaij, 2007), which can be deployed privately, according to the ‘display rules’ (Barber et al., 2011; Hochschild, 1983) of an international school, which is a unique social setting with affective intensity (Dale and James, 2015). In theory, the more adaptive cognitive strategies should be more effective than the less adaptive strategies when contending with a difficult emotion like stress (Garnefski and Kraaij, 2007; Gross and Thompson, 2007). This study can support that claim, in part, with evidence that shows that *non-adaptive* strategies have a statistically significant correlation with *higher* levels of perceived stress for this sample. Specifically, all of the non-adaptive strategies, except self-blame, are related to higher stress. Surprisingly, it did not appear that the adaptive strategies were related to lower stress, with the exception of *putting into perspective*, which is the only adaptive domain also related to both lower stress and higher self-compassion (coincidentally, items for this domain have a strong overlap with measures of ‘mindfulness’ on the SCS-SF). It can be concluded, therefore, that as a strategy that intends to lower stress for teachers, CER is not effective in this case and might not be in other cases.

It is therefore useful to ask: If ‘non-adaptive’, what purpose do these strategies serve in response to higher stress? This question can be answered through at least two perspectives.

First, through the lens of Social Constructivism, one possible answer to that question is that these cognitive strategies could also be understood as relational modes of thought amongst high-stress individuals in this sample. In other words, these strategies are learned methods of coping insofar as they maintain a socially-functional purpose for self-preservation. These shared patterns of thinking may facilitate the language of social connection, which in turn allows teachers to foster a sense of mutual suffering in response to stress. This could be supported by data from study two, which showed that the theme of relationships runs throughout the dialogue on teacher stress. With regard to shared thinking strategies amongst highly stressed teachers, for example, it could be speculated that mutual use of catastrophizing may eventually signify psychological safety and thereby create a sense of connection that has a stress-lowering effect. The theory of Social Constructivism would explain that this interpretation is based on the



notion that group norms have the capacity to penetrate and influence even the most private cognitive coping styles.

Second, through the lens of ORT, another interpretation is that cognitive emotion regulation strategies geared towards negative thinking are an avenue to meeting one's needs through dealings with students or co-workers. For example, catastrophizing might add weight to an otherwise irrelevant issue of student discipline, aligning teachers' interests and motivating action. In this case, the wilful generation of a negative emotion goes beyond the need for student discipline (controlling the external object) and serves a more personal function: to meet the internal needs for safety and belonging (e.g. acceptance, social validation, etc.) (Hèartel et al., 2009).

Like the first interpretation, this also implies that the appraisal process underpinning teacher stress and coping is not entirely the responsibility of the individual; indeed, the wider social group influences which strategy is used and to what extent (Swartz, 2012). This is supported by similar claims that have been made about the psychodynamics of groups in general and among teachers in particular (for example: Dale and James, 2015; Hèartel et al., 2009).

In respect to the second part of the question above, there was a clear distinction between the direction of blame amongst MBSR and non-MBSR groups. The MBSR group demonstrated decreased use of *Self-Blame*. This may be an interesting finding with regard to matters of school culture, educational change or even personal improvement; undoubtedly, the direction of the blame has implications for the ways in which something like educational change is subsequently managed. The implications of this finding will be discussed in a forthcoming section.

## **Limitations of the analysis and directions for future research**

One limitation of this analysis is that there is no basis in this study design to suggest a causal relationship between non-adaptive strategies and higher stress. The language of the CERQ poses the statements such that they capture the thinking that happens *after* the stressful event, however it may be the case that these non-adaptive strategies lead to stress. Regardless of the directions of influence between these strategies and the perceptions of stress, however, it is clear that the two are *related*. Along those lines, another limitation of this data is that it derived from using the Short Form, which means that individual strategies are not reliably presented in the results. It might be that these thinking styles could operate differently when acting synergistically rather than in isolation. One can only speculate how a strategy taken in isolation would facilitate stress management for teachers. More research is needed to understand the extent to which an intervention that targets a single strategy, or a group of strategies, might impact outcomes on perceived stress.

Note that there are many ways to interpret the data above; although two perspectives have been presented, more research is undoubtedly necessary to advance the interpretations offered. Other theories could explain the findings differently as well.

## **The relationship between self-compassion and MBSR and perceptions of stress**

This thesis also aimed to understand how, and the extent to which, an antecedent-focused, palliative technique might interact with the mental appraisal process of stress (i.e. the meaning making) on teacher stress. These findings were consistent with other investigations into self-compassion showing reductions in stress among different population samples (Frank et al., 2013b; Hollis-Walker and Colosimo, 2011; Smeets et al., 2014). This study translated those findings into the international school community. Importantly, the data from this study brought to the fore perhaps the most interesting finding regarding the appraisal process, one that ultimately determines the extent to which teachers experience stress: that the direction of the appraisal matters. Specifically, the appraisal of the self in the face of adversity seems to matter more than the appraisal of the adversity, especially in comparison to response-focused strategies, which also focused on systems of appraisal. Furthermore, the evidence in study one suggested that the ways in which teachers thought about themselves was a predictor of how much stress they perceived, their job satisfaction and feelings of uncertainty about their futures.

Through Object Relations Theory, it can be argued that people with a more compassionate view of themselves would also have more adaptive patterns of relating to the people and objects in their world. This was empirically supported by the strong relationships between adaptive thinking strategies and higher self-compassion. It can be inferred that the teacher's mental appraisal process is not a one-off interpretation of a stressful event, but instead it is an ongoing and dynamic cognitive system of small and nuanced judgments about their relationship to the event. These have a cumulative impact on stress. Put differently, under this theory, the data suggested that deliberately modifying belief systems about one's *self* may have played a central role in the degree to which stress was experienced when relating to that object (i.e. a school). Accordingly, it seemed that in so far as teachers were able to relate to themselves more compassionately, they were also able to act with compassion toward the 'objects' and people that caused them to suffer.

The above does not suggest that stressors or the environment were irrelevant; certainly, teaching is a challenging vocation and doing so in a foreign country arguably

adds to the difficulties. Nonetheless, teachers who were able to relate to these ‘objects’ with skills of self-compassion, however, were likely to experience far less stress under the same conditions.

Previous research has shown that teachers who undertook MBSR that also increased measures of self-compassion in the process, also had the most consistent reductions in teacher stress (Roeser et al., 2013; Taylor et al., 2015). In this study, however, respondents who took MBSR had minimal increases in this domain. Interestingly, this study was one of only a few that accepted data with substantial delays between reporting data and course completion. The data suggested that the effects of MBSR on self-compassion may fade after time. Interestingly, this study found the self-compassionate attitude was beneficial for meditators (i.e. those who took an MBSR course) and non-meditators alike. Accordingly, this data suggested that self-compassion can be approached by teachers who may want to manage stress but are dissuaded by the idea of meditation. This potential for secular engagement has implications for educational leadership in that changing even the smallest patterns of relating could have a large net effect. These implications, and others, will be discussed in a forthcoming section.

## Limitations and directions for future research

Since this was not a causal study, one can only speculate as to why self-compassion is so strongly related to lower levels of teacher stress for this sample. Other researchers have speculated that a self-compassionate attitude possibly, “*safeguards against the pernicious effects of negative feelings such as guilt and self-criticism, and facilitates well-being*” (Hollis-Walker and Colosimo, 2011, p. 226). It may also have been the case, as suggested by others, that the main mechanism by which increased self-compassion reduced teacher stress was by *increasing* feelings of connection, or instances of self-kindness or mindfulness, or a combination of the three (Neff, 2003). A case could be made for each factor. Since this study used the short forms of the measurement instruments, however, there was insufficient data to look at differences among the three aspects in isolation, meaning that it was not possible to determine the extent to which changes in one trait, such as mindfulness, affected the outcomes. Other studies have largely focused intervention efforts on the single aspect of mindfulness by using MBSR exclusively, and have shown inconsistent results with regard to changing the relationship between mindfulness and stress (Frank et al., 2013a, 2013b; Taylor et al., 2015). It is unknown if changes in stress might be a function of the increased awareness or acceptance alone. On the other hand, research into the area of self-compassion has found that the synergistic interaction between each of the three aspects has a greater impact on an array of measures of wellbeing than any one aspect taken in isolation (Germer and Neff, 2013). Future research into teacher stress would benefit from taking a more in-depth look into the role of each aspect of self-compassion to determine if one aspect is doing more work than another.

## **MBSR and perceptions of stress**

A growing body of research where MBSR has been used as an intervention, including randomized controlled trials and meta-analyses, has reported reductions in PSS scores following MBSR (See: Goldin and Gross, 2010; Khoury et al., 2015; Virgili, 2015). In this study, however, results suggested that MBSR did not have lasting impacts with regard to any of the other metrics (with the exception of slightly lower self-blame), including perceived stress. This data did not, therefore, fully support the findings of some previous studies indicating stress reductions after MBSR training. As suggested in the literature review, it may be the case that the meditative exercises in the MBSR course are operating as a form of symptom management, rather than by changing the mental appraisal framework that underpins stress. On the other hand, it may be the case that MBSR practice had a strong effect after the course, which was reduced over time. Or, this may simply have been an odd sample.

In either case, the MBSR treatment, although standardized, nonetheless had a wide scope of possible variations in both subjective (i.e. quality of instructor) and objective (i.e. time spent practicing) domains. These inconsistencies have appeared in the meta-analyses but have still resulted in net effects with regards to stress reduction. A strong point of this study was its retrospective design because it has captured data from teachers in a range of settings, who took the course with a range of instructors. This data did not necessarily confirm or deny those findings of other studies, but rather highlighted the need for those interested in studying MBSR to use longitudinal study designs.

One possible interpretation is that teachers who take an MBSR course, which is aimed at stress reduction, do so because they feel excessively stressed. Because feelings of stress are experienced along a continuum, teachers that took the course may have done so after experiencing substantially higher amounts of stress than teachers that have not taken the course. If this were the case, then perceived stress might still appear in the data as above average in a retrospective study. Another possible interpretation is that MBSR functioned as an 'awareness exercise' more than a 'stress reduction' exercise. This claim is in line with the intentions of MBSR training, which are to learn how to relate to stress differently, not necessarily to reduce it. To that end, MBSR did not appear to have much of an effect on self-compassion or CER strategies either.

Specifically, those that took MBSR reported lower self-blame and slightly higher self-compassion. Notably, the direction of this relationship was inferred: perhaps, teachers who had lower self-blame were also more likely to take MBSR. It can only be concluded that these factors are related.

Another way to interpret this data was that teachers who took MBSR may have had lower stress, but also may have been more aware that they were stressed. This interpretation takes into account the Kruger and Dunning effect, which states that actual competence is inversely proportional to perceived competence (Kruger and Dunning, 1999). It could be the case that MBSR respondents had, through practice, become more attuned to their emotional states and were, therefore, more likely to report higher stress. Kruger and Dunning (1999, p. 1122) explained it this way:

Unaccomplished individuals do not possess the degree of metacognitive skills necessary for accurate self-assessment that their more accomplished counterparts possess.

With regard to this research design, this effect would suggest that the MBSR teacher group wasn't necessarily slightly more stressed, but that they were more *aware* of their stress. More research would be needed to determine the answer to that question.

## **Interpretation of all stages with regard to the second research question**

The findings offered a unique insight into teacher stress. Stage one of this study showed that international schoolteachers felt they have more stress and were taking steps to reduce stress to a much greater extent than the average U.S. adult. The questions in the study were specifically worded to capture qualitative and normative feelings about stress. It is not unreasonable to assume that teachers used their social context as a mental baseline measurement to determine if they had experienced “a lot, a moderate amount, or a little” of stress. It could also have been the case that teachers were overestimating their own stress, in part, because of unspoken social expectations to assimilate; which implies that a social expectation to feel stressed is part of what defines a teacher’s role.

Similarly, interviews in stage two revealed that teachers felt that stress was playing a major role in their well-being and job satisfaction. Again, teachers likely used their own mental models of stress to respond to the question “Describe a stressful event...” and the data generally showed that stress and coping was a function of social relationships. Arguably, the nature of the question implies that stress is related to the event, rather than internal factors, such as the mental models of appraisal.

Stage three of this study used a highly reliable and valid measurement of perceived stress, which took a more robust look into teachers’ stress using positively and negatively worded statements and five possible responses for each. This revealed that teachers’ perceived stress levels were nearly identical to the norm.

When the disparity between PSS-4 scores and anecdotal claims were viewed through the lenses of Social Constructivist theory and ORT, an interesting finding emerged. The phenomena of teacher stress in international schools appeared to be constructed and conceptualized according to its social context; the expressions of feeling stress functioned as a means ‘safely’ to experience anxieties of living and working abroad and, thereby, secured a sense of social belonging amongst others who share those experiences. This claim is empirically supported by the differences in measures of stress across the three stages of this study, along with the anecdotal evidence that emerged from the interviews. This is not to argue that teacher stress did not exist, but rather that



teachers may have called something stressful because it was a socially-normalizing cultural practice to do so.

## Chapter VI: Overall Conclusions

This study has brought forth three findings on teacher stress. First, generally speaking, it has been shown that international schoolteachers believe that they have higher-than-average amounts of stress. In comparison to the general populations, however, this sample reports roughly equal amounts of stress, when stress is measured quantitatively rather than by self-reporting.

Social Constructivist theory posits that this disparity is probably happening as a result of the language that emerges from social learning (notably, slight differences were seen between genders: male teachers reported less stress than female teachers; likewise, male teachers tended to be more self-compassionate than females. These differences are in line with the wider body of research on the two constructs). To that end, there was evidence to suggest that higher stress was also related to a more frequent use of non-adaptive thinking strategies. One might infer this to mean that the thinking strategies and resulting language of teacher stress might be partly explained as a cultural artefact of the international settings. This is a valuable contribution to the understanding of the appraisal process, which will be explored in more detail next.

To expand on the above, this study tested three potential strategies for emotion regulation that take into account the 'display rules': 1) Self-compassion as an antecedent-focused strategy that is also palliative / emotion-focused, 2) Cognitive emotion regulation, which is response-focused and considered a direct-action technique and 3) MBSR, which prescribes a combination of approaches. It can be safely concluded that the most effective approach to coping with stress -an emotion-focused problem- is a preventative, emotion-focused solution, one of which is Self-Compassion. When perceived stress was held as the metric, the mental appraisal process was fundamental to the extent to which it was experienced. Moreover, the appraisal of the self appeared to have a great deal of impact on how stressors are perceived in the first place.

There is a clear relationship between higher use of non-adaptive strategies (ie. *rumination, catastrophizing, others blame*) and higher stress for teachers; however, this appeared to hold no promise for lowering teacher stress. On the other hand, the adaptive thinking strategies (i.e. *positive refocusing, acceptance, refocus on planning, positive reappraisal, putting into perspective*) had a clear relationship to higher self-compassion and lower stress. With the small exception of lower use of self-blame for the

MBSR group, teachers were not any more or less likely to use these strategies any differently than the general population. To that end, MBSR appeared to have little lasting impact on perceptions of stress, which was reflected in the lack of changes in perceptions of stress as well; this further emphasized the importance of the appraisal process.

The data from this study suggested another key finding: teacher stress has both simple and complex domains. It could be argued that self-compassion is more suitable for non-specific complex stress, whereas CER might prove to be a useful strategy for singularly stressful (i.e. simple stress) events, which relate to distinctly measurable problems. Although a useful heuristic for approaching issues of teacher stress, more research is needed to confirm or falsify the existence of these domains.

Finally, this study found that the fear of social isolation and the need for a sense of belonging seemed to emerge with some consistency in the qualitative interviews and via the data collected from the SCS-SF. Intuitively, this is a reasonable fear for teachers working in a foreign country, a setting where social isolation is highly consequential. Through the lens of ORT, this would suggest that amongst teachers in this line of work there were deeply important emotional needs for social and psychological safety. These findings have powerful implications for educational leadership, which will be discussed in the forthcoming implications section.

## **Policy implications: Emotion regulation as a means to school improvement?**

Using the data from this study to suggest educational policy is the practical 'next-step' in addressing the issue of teacher stress. It is inspired by the intention to reduce the impact of teachers' emotional suffering, which is believed to be a means towards educational improvement (See: Beshai et al., 2015; Botwinik, 2007; Jennings et al., 2013). Noting that policy acts as a source of authority; through recognition alone it lends legitimacy to both the conclusions of the research and to the social system that the research legitimizes (Passeron and Bourdieu, 1990). Policy achieves this through the simple act of retranslating and identifying a particular set of values, typically of a dominant class, in terms of their logical application to a given educational system (Passeron and Bourdieu, 1990; Swartz, 2012). More specifically, policies may inevitably favour perpetuation of ideological relationships (i.e. accounting for 'display rules') between staff and the organization (Bourdieu, 1988; Coleman, 1988). With regard to this study, a policy that speaks to the extent to which teachers should openly cope with emotional difficulties comes at the risk of a legitimate social cost for teachers who are unskilled in coping. In so far as international schoolteachers have the ability to conform to a policy of wellbeing they are still required to renegotiate the values of their native social class so as to reflect the values of the given policy. This renegotiation means that due to the unpredictable nature of teacher stress, teachers will inevitably be in relationship with the ambiguous criteria of social perception, which is further complicated by a foreign, multicultural social setting. Thus, it is imperative that a thoughtful analysis of the functions of a hypothetical policy precedes its recommendation.

Between self-compassion and cognitive emotion regulation (and MBSR), increased self-compassion clearly had the strongest relationship ( $r = -.491, p < .001$ ) to lower perceptions of stress. This was true for all teachers, regardless of their experience with MBSR. This research, and other studies on self-compassion, has concluded that the attitudes are associated with an array of health-promoting behaviours (Sirois et al., 2015). To that end, self-compassion can be conceptualized as a framework of behavioural and emotional skills that can be cultivated through practice, which may

include mindfulness meditation. This is supported by previous research on self-compassion by Neff and Germer (2013, p. 40) who reported:

The more participants practised formal meditation, the more they increased their self-compassion levels. Similarly, the degree that participants practised informal self-compassion techniques (e.g., putting a hand over one's heart in times of stress) in daily life also predicted gains in self-compassion. This implies that self-compassion is a teachable skill that is "dose dependent." The more you practise it the more you learn it.

Whether these skills should be cultivated for the purpose of coping with stress more efficiently is up for debate, however, and the case against doing so highlights an contestable issue for educational leadership, which will be articulated next.

## **Limitations of policy for stress-management**

One could conceivably imagine the consequences of an intervention that offered teachers a reliably therapeutic action that resulted in instantaneous and complete relief from everything that constitutes their own understanding of the negative symptoms of stress. If such a panacea existed, the task of policy then becomes an act of defining what is normative for the amount of suffering a teacher should endure. Would it be normative, for example, for a policy to suggest that a teacher should be restored to perfect equanimity within 30 seconds of realizing that they are stressed? Or would it be a more accurate goal to not feel stress at all? Whatever answer feels comfortable is effectively encapsulating the value of all that is felt and all that is imaginably felt when stressed and must be considered as such.

On the one hand, if the aforementioned hypothetical cure were available, the immediacy of the relief would be frivolous to the stressors because they (whether people or objects or both) are not available to experience the consequences either way. If the policy were to suggest that teachers only had to decide when, not if, they would accept this treatment, however, it would imply something meaningful about the value of teacher stress. It might be argued, however, that there is something sacred to a teacher's practice; that their love of their work inspires them to endure, if not learn from, constant difficulties, and that this element of the role still needs to be honoured, at least in a eudemonic way through an effective and appropriate struggle with their work. After all, what added value would an experienced teacher hold if they did not have to learn from stressful situations along the way? Even if not to the advantage of the stressed teacher, the hope and the learning that emerge from successful experiences with stressful situations are clearly qualities that benefit every other teacher. It is precisely this belief about stress that ultimately causes one to recoil from the idea of a policy for asking someone to limit the impact from stressful experiences in the first place.

As the evidence continues to pull mindfulness-based practices (e.g. self-compassion meditation) into modern education, this seemingly impractical thought experiment will become ever more useful and relevant to educational policy; especially as research like this continues to suggest that teachers can influence their intuitions and alter their emotional lives, even if only to a granular degree. Consider, for example, the disastrous

ways in which school leadership could force organizational change if not bound to be considerate of the stressful emotional affects it could have on teachers. It would be likely that issues of staff climate and culture would take a back seat to expectations of performativity. None of this would be good for teachers.

In that vein, it follows that school leadership must consider self-compassion training cautiously as a tool to alleviate their over-stressed teachers. While it is effective for influencing the mental appraisal process, introducing it as a prescriptive tool may only induce more stress by making self-compassion techniques ‘another thing to do’ or lower stress as ‘another goal to achieve’. This was the case with MBSR respondents of this study. For example, one anonymous respondent commented: *"I have been forced to sit, unwillingly, through three bouts of mindfulness training and it really does nothing for me."* Moreover, such training serves to emphasize certain dominant values (e.g. self-kindness) as social norms, which places an impetus on a teacher to feel authentically and display certain emotions on demand. This can leave staff feeling unheard and isolated and create considerable distance between them and administration. For example, another MBSR respondent for this study commented: *"The training only reinforced the schools' ethos of not listening to staff."*

The comments suggest that a secular version of a self-compassion intervention (i.e. one that does not require a formal meditation practice) may be more promising for administrators who are looking to influence the appraisal processes of stressful situations and thereby enhance staff wellness. For example, one study on college students who had no formal meditation practice applied a self-compassion intervention without meditation and showed reductions in psychological factors that contributed to stress and increases in feelings of connectedness (see: Smeets et al., 2014). The research conducted for this study offered evidence that these findings might apply to teachers as well. Certainly, cognitive emotion regulation and self-compassion, neither of which requires a spiritual practice, correlated with reductions in perceived stress for MBSR participants, mindfulness meditators, and non-meditators alike. In the next section, practical steps for school policy that take account of the ideas above will be spelled out in detail.

## **A policy of strategic compassion**

At the onset of the literature review, stress was conceptualized as either simple or complex. Because simple stress is bound to a finite set of stressors and resources, policies that aim to manipulate stressors or resources provide a natural solution in so far as they do not compete with the primary task or the school's mission. Under these conditions, policies of teacher wellbeing will continue to favour those teachers who are the most savvy at getting their needs met. Policies that are aimed at simple stress are typically sought to help teachers suffer less; whereas, policies that aim to mediate complex stress, and do so equitably, are aimed at 'suffering better'. These policies are less straightforward, however.

For teachers to manage stress effectively, they need to adhere to a process, not a solution. To be clearer, teachers need systems in place that allow, if not promote, attitudes of self-compassion (i.e. cooperation over competition, self-kindness over self-criticism, acceptance, etc). For example, it is an immense relief – and no sign of defeat – for teachers simply to know that other teachers are also stressed about their work. Feeling a sense of social connectedness *because of* – and not in spite of – difficulties is an honourable and dignified consolation to teacher stress. Leadership may find it helpful to consider policies as opportunities to integrate 'strategic compassion', whereby one takes active steps, systematically and routinely, towards helping others cultivate a self-compassionate attitude.

While it is not the intention of this thesis to propose formal direction for these policies, the data has provided some direction to suggestions for future work in this area. Notably, a policy of Strategic Compassion highlights the importance of compassionately understanding the other person's needs before attempting to solve the presenting problem; it asks leadership to respond to emotion-focused problems with solutions that are emotion-focused first and response-focused second. The ability to utilize compassion successfully is a valuable skill for educational leadership and should be a focus of professional development for any school with a priority for teacher wellbeing.



## Overall contributions

This section will speak to the overall contributions that the project has made to the wider field of educational research.

This study has offered data that contributes to the understanding of teacher stress. The study has shown that the focus on stress in teaching has been distorted by the notion that it is largely explained by external stressors. This study suggested that a more accurate view is one that leans heavily on the mental appraisal processes. More significantly, this is the first study to suggest that the ways in which international teachers relate to themselves determines their perceptions of stress. This appraisal is central to the experience of living overseas, where social isolation is a commonly shared anxiety. Specifically, for teachers living abroad, coping with stress successfully is influenced by, if not a by-product of, their ability to feel psychological safety within the wider social environment.

In addition, this study found that one avenue to generating a sense of safety is self-compassion. Teachers that had higher indications of a self-compassionate attitude also had lower perceived stress, regardless of their experience with mediation. Thus, this study found that the relationship between teacher stress, job satisfaction and feelings of uncertainty about their futures was directly related to teachers' attitudes toward themselves.

Thirdly, this study makes an important contribution to the field of emotion regulation for teachers. Previous research has suggested that response focused, direct action techniques are generally more effective, although this may represent a confusion between simple and complex stress. This study can safely say that of the tested approaches, antecedent-focused strategies (i.e. preventative measures) seem to have a more powerful buffering effect against stress than response focused strategies for this population of teachers. As a strategy that intends to lower stress for teachers, MBSR and C.E.R. are not effective, at least not in the long-term. Finally, this study has made useful contributions to the, arguably, new construct of self-compassion.

These findings have offered an interpretation of evidence to show that teacher stress can be understood according to at least two domains: simple and complex. This is likely to be very useful for future approaches to understanding the issue of teacher stress more deeply.

## Study limitations

This section will present the limitations of the project as a whole, which speaks to the limitations of conducting this study in three stages, as well as to the overall study itself. Many limitations are inherent to conducting the study as a single researcher. Although the results are largely consistent with the wider body of research, there are limitations to the quality of the data that must be acknowledged.

First, it could be argued that this study used small sample sizes compared to the size of the field of international teaching. Notwithstanding this, it should be noted that this sample size is comparable to similar studies. As a point of reference, another study on the effects of MBSR on teachers, conducted by Beshai et al. (2015), measured 89 participants (49 MBSR and 40 comparison). Likewise, a study by Roeser et al., (2013) used a U.S. sample of 55 public school teachers (7 male 48 female). Secondly, while efforts were made to collect data from a wide range of teachers, one might say that it could have been an odd collection of participants, which would impact a baseline that was comprised of data from non-MBSR participants. This study, therefore, referenced published normative ranges; although, notably these were taken from demographically dissimilar samples.

Another limitation is that much of the study is retrospective and therefore relied on self-report interview data and self-report scales. Although these instruments were designed with those issues in mind, they are vulnerable to an array of biases. The field of social sciences does not share the luxury of physical laws; at best, the only guarantee is that perceptions rightfully change as people gain new information. Indeed, this study offers data to support that claim. Ideally, the study would include randomized, double blind observational data on international schoolteachers working around the world, half of which have taken a tightly controlled MBSR course. That was not an opportunity afforded to this researcher. The results presented are more safely understood as a small part of a much larger body of knowledge that has made similar claims. If taken in isolation, the data here is best thought of as indicative.

Finally, one should note that the novelty of mindfulness in education inherently presents a need for more data. Because this study was interested in the *general* impacts of MBSR training for teachers, it attempted to gather larger amounts of data by using short forms of the scales and limited the length of the interviews. This means that item

analysis would not be as valid or reliable compared to an analysis based on their longer counterparts. It is only because of the data in stage two that inferences were able to be made; however, there is not sufficient evidence to understand which of the three attributes of self-compassion are most useful for teachers. That said, this study points to the attribute of common humanity (or low isolation) as the single most promising factor mediating teacher stress among international teachers.

## Recommendations for future research

Given the shallowness of the research on teacher stress in international schools and the novelty of the construct of Self-Compassion, future research directions are numerous. One practical step would be to replicate this study with a much larger representative sample. Another direction would be exploring the impact of one particular factor of self-compassion, such as common humanity. Neff and Germer (2013, p. 40) have suggested *“an increased perception of shared humanity is likely to be related to increased feelings of social connectedness.”* Deeply studying this specific area would be valuable because social connectedness is an unavoidable issue for teachers working in a foreign international setting. A direct focus on teachers' feelings of connectedness can be measured using The Social Connectedness Scale (Lee and Robbins, 1995) which measures feelings of interpersonal closeness between people, friends and society. Alternatively, replicating this study using the longer forms would be advantageous to developing a deeper understanding of how particular factors of self-compassion are able to mediate teacher stress. Such an approach would have meaningful application for other people working in person-focused industries, such as policemen, teachers, nurses, counsellors, etc., regardless of their appreciation for learning or practising mindfulness meditation.

## **Concluding comments**

This study spent over four years attempting to understand teacher stress and the extent to which a particular coping strategy might interact with stress for teachers working in a foreign setting. After exploring the seemingly endless array of strategies, MBSR emerged with relationships to lower teacher stress. From that research, it appeared (and still does appear) that self-compassion was doing the lion's share of the work in these studies. Because practising meditation is, at its core, a private cognitive practice, the study also settled on an investigation into the ways that cognitive emotion regulation strategies might also interact with complex stress. Undoubtedly, the ultimate structure and aims of the study did not reflect the original intentions.

The investigation was a genuine attempt at understanding the issue of teacher stress in international schools. It began by reviewing hundreds of research papers, leading the research down paths of emotion regulation, mindfulness, stress, and so on. After months of analysis, this study took a pragmatic approach utilizing mixed-methods across three studies, using a total of four psychometric tools, an interview and a range of self-generated survey questions. Data was viewed through two lenses: Social Constructivism and Object Relations Theory. Despite the headway that this investigation made into the fields of self-compassion, cognitive emotion regulation and teacher stress for international teachers, this project mainly served to reveal the deep complexity of the problem. In hindsight, a single stage research design, with a tighter focus on one of these theories, one of the constructs, using one of the metrics would have been a sufficient challenge. This investigation has had measurable personal impacts on this researcher's understanding of stress and coping. With regard to the field of education, it is hoped that at a minimum, there is increased optimism for the prognosis of teacher stress in the growing field of international teaching.

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# Appendix A

## Teacher Interview Protocol

### **I. Introduction**

Now I'd like to ask you some questions about your role as a teacher. We are interested in what you think and feel is good and what you find challenging about teaching. These are the same questions we asked you last Spring, but we do this so that we can compare how things are going for you now, compared to last Spring.

### **II. Favorite things**

1. What are your favorite things about being a teacher? If answer is too general ask:

Can you give me some brief examples of what you mean?

2. How can you tell when you are doing a good job teaching? (If the teacher's response to the first question addresses this question, acknowledge that response and ask if there are additional/other ways that he/she knows a good job is being done).

### **III. Job stressors**

What would you say are some of the most stressful aspects of your job?

Could you describe a specific incident or recent event that occurred that stressed you out?

1. How often does this kind of event occur?
2. What do you think was going on?
3. Do you have a sense of why this particular kind of event is stressful for you?
4. What kinds of feelings came up during this event?
5. What do/did you do to cope in the situation(s)?
6. What, if anything, have you found to be successful in such instances?
7. How did it turn out?
8. If you could, would you have done something differently?
9. What did you learn (if anything) from this event?
10. On a scale of 1 to 10, how would you rate your success in coping with this situation where 1 is "not at all" and 10 is "very well?"

## Appendix B

### PERCEIVED STRESS SCALE

#### Sheldon Cohen

The *Perceived Stress Scale* (PSS) is the most widely used psychological instrument for measuring the perception of stress. It is a measure of the degree to which situations in one's life are appraised as stressful. Items were designed to tap how unpredictable, uncontrollable, and overloaded respondents find their lives. The scale also includes a number of direct queries about current levels of experienced stress. The PSS was designed for use in community samples with at least a junior high school education. The items are easy to understand, and the response alternatives are simple to grasp. Moreover, the questions are of a general nature and hence are relatively free of content specific to any subpopulation group. The questions in the PSS ask about feelings and thoughts during the last month. In each case, respondents are asked how often they felt a certain way.

**Evidence for Validity:** Higher PSS scores were associated with (for example):

- failure to quit smoking
- failure among diabetics to control blood sugar levels
- greater vulnerability to stressful life-event-elicited depressive symptoms
- more colds

**Health status relationship to PSS:** Cohen et al. (1988) show correlations with PSS and: Stress Measures, Self-Reported Health and Health Services Measures, Health Behavior Measures, Smoking Status, Help Seeking Behavior.

**Temporal Nature:** Because levels of appraised stress should be influenced by daily hassles, major events, and changes in coping resources, predictive validity of the PSS is expected to fall off rapidly after four to eight weeks.

**Scoring:** PSS scores are obtained by reversing responses (e.g., 0 = 4, 1 = 3, 2 = 2, 3 = 1 & 4 = 0) to the four positively stated items (items 4, 5, 7, & 8) and then summing across all scale items. A short 4 item scale can be made from questions 2, 4, 5 and 10 of the PSS 10 item scale.

**Norm Groups:** L. Harris Poll gathered information on 2,387 respondents in the U.S.

**Norm Table for the PSS 10 item inventory**

Category	N	Mean	S.D.
<b>Gender</b>			
Male	926	12.1	5.9
Female	1406	13.7	6.6
<b>Age</b>			
18-29	645	14.2	6.2
30-44	750	13.0	6.2
45-54	285	12.6	6.1
55-64	282	11.9	6.9
65 & older	296	12.0	6.3
<b>Race</b>			
white	1924	12.8	6.2
Hispanic	98	14.0	6.9
black	176	14.7	7.2
other minority	50	14.1	5.0



## Perceived Stress Scale

The questions in this scale ask you about your feelings and thoughts **during the last month**. In each case, you will be asked to indicate by circling *how often* you felt or thought a certain way.

Name \_\_\_\_\_ Date \_\_\_\_\_  
Age \_\_\_\_\_ Gender (*Circle*): **M** **F** Other \_\_\_\_\_

**0 = Never    1 = Almost Never    2 = Sometimes    3 = Fairly Often    4 = Very Often**

- |  |   |   |   |   |   |
|--|---|---|---|---|---|
| 1. In the last month, how often have you been upset because of something that happened unexpectedly? .....                 | 0 | 1 | 2 | 3 | 4 |
| 2. In the last month, how often have you felt that you were unable to control the important things in your life? .....     | 0 | 1 | 2 | 3 | 4 |
| 3. In the last month, how often have you felt nervous and "stressed"? .....  | 0 | 1 | 2 | 3 | 4 |
| 4. In the last month, how often have you felt confident about your ability to handle your personal problems? .....         | 0 | 1 | 2 | 3 | 4 |
| 5. In the last month, how often have you felt that things were going your way? .....                                       | 0 | 1 | 2 | 3 | 4 |
| 6. In the last month, how often have you found that you could not cope with all the things that you had to do? .....       | 0 | 1 | 2 | 3 | 4 |
| 7. In the last month, how often have you been able to control irritations in your life? .....                              | 0 | 1 | 2 | 3 | 4 |
| 8. In the last month, how often have you felt that you were on top of things? ..   | 0 | 1 | 2 | 3 | 4 |
| 9. In the last month, how often have you been angered because of things that were outside of your control? .....           | 0 | 1 | 2 | 3 | 4 |
| 10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? ..... | 0 | 1 | 2 | 3 | 4 |

Please feel free to use the *Perceived Stress Scale* for your research.

**Mind Garden, Inc.**

info@mindgarden.com  
www.mindgarden.com

### References

The PSS Scale is reprinted with permission of the American Sociological Association, from Cohen, S., Kamarck, T., and Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, 24, 386-396.  
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## Appendix C

Running head: SELF-COMPASSION SCALE–Short Form (SCS–SF)

1

To Whom it May Concern:

Please feel free to use the Self-Compassion Scale – Short Form in your research (12 items instead of 26 items). The short scale has a near perfect correlation with the long scale when examining total scores. We do not recommend using the short form if you are interested in subscale scores, since they're less reliable with the short form. You can e-mail me with any questions you may have. The appropriate reference is listed below.

Best wishes,

Kristin Neff, Ph. D.

e-mail: kristin.neff@mail.utexas.edu

Reference:

Raes, F., Pommier, E., Neff, K. D., & Van Gucht, D. (2011). Construction and factorial validation of a short form of the Self-Compassion Scale. *Clinical Psychology & Psychotherapy*. 18, 250-255.

Coding Key:

Self-Kindness Items: 2, 6

Self-Judgment Items: 11, 12

Common Humanity Items: 5, 10

Isolation Items: 4, 8

Mindfulness Items: 3, 7

Over-identified Items: 1, 9

Subscale scores are computed by calculating the mean of subscale item responses. To compute a total self-compassion score, reverse score the negative subscale items - self-judgment, isolation, and over-identification (i.e., 1 = 5, 2 = 4, 3 = 3, 4 = 2, 5 = 1) - then compute a total mean.

# Appendix D

## CERQ

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### How do you cope with events?

Everyone gets confronted with negative or unpleasant events now and then and everyone responds to them in his or her own way.

By the following questions you are asked to indicate what you generally think, when you experience negative or unpleasant events.

	(almost) never	some- times	regu- larly	often	(almost) always
1. I think that I have to accept that this has happened	1	2	3	4	5
2. I often think about how I feel about what I have experienced	1	2	3	4	5
3. I think I can learn something from the situation	1	2	3	4	5
4. I feel that I am the one who is responsible for what has happened	1	2	3	4	5
5. I think that I have to accept the situation	1	2	3	4	5
6. I am preoccupied with what I think and feel about what I have experienced	1	2	3	4	5
7. I think of pleasant things that have nothing to do with it	1	2	3	4	5
8. I think that I can become a stronger person as a result of what has happened	1	2	3	4	5
9. I keep thinking about how terrible it is what I have experienced	1	2	3	4	5
10. I feel that others are responsible for what has happened	1	2	3	4	5
11. I think of something nice instead of what has happened	1	2	3	4	5
12. I think about how to change the situation	1	2	3	4	5
13. I think that it hasn't been too bad compared to other things	1	2	3	4	5
14. I think that basically the cause must lie within myself	1	2	3	4	5
15. I think about a plan of what I can do best	1	2	3	4	5
16. I tell myself that there are worse things in life	1	2	3	4	5
17. I continually think how horrible the situation has been	1	2	3	4	5
18. I feel that basically the cause lies with others	1	2	3	4	5

**Thank you for filling out the questionnaire!**

## Appendix E

### Stage three: Informed consent, background questions, three psychometric surveys, MBSR/ mindfulness meditation enquiry

#### Informed Consent Form

##### Introduction

This study investigates a sample of teachers currently working in an international school, in a foreign country, teaching the IB curriculum. The study is attempting to understand the perceptions of stress and how those are related to self-compassion and emotional regulation.

##### Procedures

You will be asked to complete a short questionnaire about stress relating directly and indirectly to teaching in an international context. The questionnaire will take approximately 15 minutes. This questionnaire will be conducted with an online Qualtrics-created survey.

##### Risks/Discomforts

Risks are minimal for involvement in this study. However, you may feel emotionally uneasy when asked to make judgments based your stress levels. Although we do not expect any harm to come upon any participants due to electronic malfunction of the computer, it is possible though extremely rare and uncommon.

##### Benefits

There are no direct benefits for participants. However, it is hoped that through your participation, researchers will learn more about useful strategies to help teachers manage stress.

##### Confidentiality

All data obtained from participants is made anonymous by the software. The data will be kept confidential and will only be reported in an aggregate format (by reporting only combined results and never reporting individual ones). All questionnaires will be concealed, and no one other than then primary investigator and supervising researchers listed below will have access to them. The data collected will be stored in the HIPPA-compliant, Qualtrics-secure database until it has been deleted by the primary investigator.

### Compensation

There is no direct compensation.

### Participation

Participation in this research study is completely voluntary. You have the right to withdraw at anytime or refuse to participate entirely. If you desire to withdraw, please close your Internet browser and notify the principal investigator at this email: Rds32@bath.ac.uk

### Questions about the Research

If you have questions regarding this study, you may e-mail RDS32@Bath.AC.UK

### Questions about your Rights as Research Participants

If you have questions you do not feel comfortable asking the researcher, you may contact the supervising professor, Dr. Chris James at C.James@bath.ac.uk Or contact the director of Bath's Institutional Review Board at +44 (0)1225 388388.

I have read and understood the above consent form and desire of my own free will to participate in this study.

- ☐ Yes  
☐ No

What is your gender?

How many years have you been teaching?

- ☐ less than 5  
☐ 5-10  
☐ 11-20  
☐ 21+

In which setting do you currently work? (select two)

- ☐ International School in a foreign country
- ☐ International School in my home country
- ☐ The school uses the IB curriculum
- ☐ The school does NOT use the IB curriculum

The questions in this scale ask you about your feelings and thoughts during the last month. In each case, please indicate with a check how often you felt or thought a certain way.

In the last month, how often have you felt that you were unable to control the important things in your life?

In the last month, how often have you felt confident about your ability to handle your personal problems?

In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

In the last month, how often have you felt that things were going your way?

#### HOW I TYPICALLY ACT TOWARDS MYSELF IN DIFFICULT TIMES

Please read each statement carefully before answering. To the left of each item, indicate how often you behave in the stated manner, using the following scale:

**Almost  
never**

**1**

**2**

**3**

**4**

**Almost  
always**

**5**

When I fail at something important to me I become consumed by feelings of inadequacy.

I try to be understanding and patient towards those aspects of my personality I don't like.

When something painful happens I try to take a balanced view of the situation.

When I'm feeling down, I tend to feel like most other people are probably happier than I am.

I try to see my failings as part of the human condition.

When I'm going through a very hard time, I give myself the caring and tenderness I need.

When something upsets me I try to keep my emotions in balance.

When I fail at something that's important to me, I tend to feel alone in my failure.

When I'm feeling down I tend to obsess and fixate on everything that's wrong.

When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.

I'm disapproving and judgmental about my own flaws and inadequacies.

I'm intolerant and impatient towards those aspects of my personality I don't like.

### How do you cope with events?

Everyone gets confronted with negative or unpleasant events now and then and everyone responds to them in his or her own way. By the following questions you are asked to indicate what you generally think, when you experience negative or unpleasant events.

I think that I have to accept that this has happened.

I often think about how I feel about what I have experienced.

I think I can learn something from the situation.

I feel that I am the one who is responsible for what has happened.

I think that I have to accept the situation.

I am preoccupied with what I think and feel about what I have experienced.

I think of pleasant things that have nothing to do with it.

I think that I can become a stronger person as a result of what has happened.

I keep thinking about how terrible it is what I have experienced.

I feel that others are responsible for what has happened.

I think of something nice instead of what has happened.

I think about how to change the situation.

I think that it hasn't been too bad compared to other things.

I think that basically the cause must lie within myself.

I think about a plan of what I can do best.

I tell myself that there are worse things in life.

I continually think how horrible the situation has been.

I feel that basically the cause lies with others.

Have you completed a Mindfulness Based Stress Reduction (MBSR) course?

☐ Yes

☐ No

How long ago did you complete the MBSR course?

☐ Less than one year ago

☐ Between one and two years ago

☐ Two or more years ago

If you have any mindfulness experience, please describe that below. (For example: Do you have any formal training? What do you do? How often? )